DOCUMENT RESUME

ED 345 046 CE 061 139

TITLE Pennsylvania Council on Vocational Education 22nd Annual Report.
INSTITUTION Pennsylvania State Council on Vocational Education, Harrisburg.
PUB DATE 91
NOTE 50p.; For the 21st Annual Report, see ED 333 138.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Annual Reports; Demonstration Programs; Educational Finance; Educational Legislation; *Educational Trends; Enrollment; Federal Legislation; Integrated Curriculum; Job Placement; Job Training; Postsecondary Education; Public Policy; Secondary Education; Special Needs Students; *State Agencies; State Aid; State Government; State Legislation; State Programs; *Statewide Planning; *Vocational Education; Vocational Followup
IDENTIFIERS Carl D Perkins Voc and Appl Techn Educ Act 1990; Job Training Partnership Act 1982; Pennsylvania; *Pennsylvania Council on Vocational Education

ABSTRACT

This annual report describes activities and accomplishments of the Pennsylvania Council on Vocational Education (PACVE). It begins with letters from the: Chair of PACVE, Governor, Secretary of Education, Commissioner of Elementary and Secondary Education, and Director of the Bureau of Vocational-Technical Education. Other contents include listings of PACVE responsibilities and activities and recommendations to the State Board of Education, including expansion of assessments of secondary vocational-technical education students; increased support for adult vocational education programs; review of need for postsecondary technical education programs; strengthening the vocational personnel development system; and coordination of state administration activities. Four major issues addressed by PACVE are identified: implementation of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990, development of the State Plan for Vocational-Technical Education, integration of academic and vocational education curricula, and curriculum regulations for academic and vocational education. Highlights of new and innovative vocational education programs are provided. A statistical review of the status of vocational education in Pennsylvania includes tables and figures that provide data on vocational student enrollments, special populations, placement of completers, and earnings of employed graduates. Information is also presented on the Governor's Special Grant for Education (8% Funds) of the Job Training Partnership Act. (YLB)

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Pennsylvania Council on Vocational Education

22nd Annual Report 1991

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COMMONWEALTH OF PENNSYLVANIA
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William R. Smith, Chairperson

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Donald M. Carroll, Jr., Secretary of Education

OFFICE OF ELEMENTARY AND SECONDARY EDUCATION
Joseph F. Bard, Commissioner

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Peter Garland, Acting Commissioner

BUREAU OF VOCATIONAL-TECHNICAL EDUCATION
Dr. Ferman B. Moody, Director

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Diane D. Donaher, Vice-Chair
Glenn A. Schaeffer, Financial Secretary
Dennis P. Rhen, Executive Director
Susan R. Dean, Administrative Assistant
Joyce R. Moyer, Research Assistant

It is the policy of the Pennsylvania Council on Vocational Education not to discriminate on the basis of sex, handicap, race, age, religion, marital status, veteran status, or national ethnic origin in its employment, educational programs or activities or other agency-administered programs.

This document was published with federal funds from the Carl D. Perkins Vocational Education Act of 1990 by Art Communications Systems Inc. Some of the employees who were directly involved in printing this document graduated from secondary vocational education programs.

TABLE OF CONTENTS

	Page
Letter from the Chair of PACVE	iv
Letter from the Governor	v
Letter from the Secretary of Education	vi
Letter from the Commissioner of Elementary and Secondary Education	vii
Letter from the Director of the Bureau of Vocational-Technical Education	viii
The Pennsylvania Council on Vocational Education	1
Responsibilities	2
Activities	3
Recommendations to the State Board of Education	5
PACVE Positions on Special Issues	8
On-Site Compliance Review for Vocational Education	11
Public Institutions Offering Vocational Education Programs	13
Vocational Program Highlights	14
A Statistical Review of Vocational Education in Pennsylvania	25
Vocational Program Offerings	26
Secondary Vocational Education Graduates Successfully Placed	27
Decline of Secondary Student Enrollments Continues	28
Vocational Education Enrollments Decline More Rapidly than High School Enrollments	29
Enrollments Continue to Decline	30
Most Special Population Enrollments Decline Proportionately	31
Vocational Education Continues to Serve High Percentage of Special Population Students	32
Disadvantaged and Handicapped Secondary Enrollments Remain Stable	33
Special Needs Students Enrolled in Secondary Vocational Education Programs	34
Vocational Enrollments Fluctuate By Level	35
Student Organizations Show Small Decrease in Membership	35
Earnings of Vocational Education Graduates	36
Adult Enrollments Stabilize	37
Adult Vocational Education Graduates Achieve 82% Placement Rate	38
JTPA Clients Receive Vocational Education Services	39
Customized Job Training for Pennsylvania Employers	40

PENNSYLVANIA COUNCIL
ON VOCATIONAL EDUCATION
SUITE 202, HARRISBURG TRANSPORTATION CENTER
415 MARKET STREET, HARRISBURG, PENNSYLVANIA 17101-2302
(717) 232-7653

Dear Fellow Citizens:

On behalf of the Pennsylvania Council on Vocational Education (PACVE), I am pleased to present the 1991 Annual Report of Council activities and accomplishments.

The Report includes recommendations to the State Board of Education and the Governor. It identifies major issues addressed by Council, including implementation of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990, development of the State Plan for Vocation-Technical Education, integration of academic and vocational education curricula, and curriculum regulations for academic and vocational education. A portion of the report identifies the current status and trends in vocational education and includes current data and statistics relating to vocational education students and programs. Highlights of new and innovative vocational education programs are also provided.

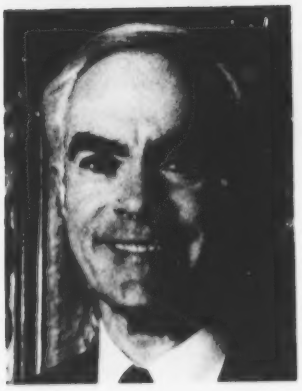
The Council hopes the Report will be informative and useful, and that it will contribute to understanding the vocational education system and the role of PACVE in Pennsylvania. Questions or comments concerning the Report are invited and may be directed to the Council.

Sincerely,

Andree P. Phillips

Andree P. Phillips,
Chair

COMMONWEALTH OF PENNSYLVANIA
OFFICE OF THE GOVERNOR
HARRISBURG



THE GOVERNOR

January 7, 1992

Greetings:

Work force development is a major challenge facing our Commonwealth and our nation as we strive to support a worldwide economy. The demands for a work force that possesses both the academic and occupational competencies are paramount as we prepare to enter the 21st Century.

The need to expand vocational-technical education in new and improved ways that involve the integration of academics and vocational course content, the linking of the secondary and postsecondary education, and effective business-industry-education partnerships will continue in the years ahead.

The Pennsylvania Council on Vocational Education in partnership with business and industry, local and state education and government leaders, is a major partner in developing the policies and programs needed for Pennsylvania to have a world-class work force.

This administration will continue to support an effective system of vocational-technical education and its goal to meet the needs of youth, adults and business and industry, today and throughout the 21st Century.

Sincerely,

Robert P. Casey
Governor

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
333 MARKET STREET, P.O. BOX 911
HARRISBURG, PA 17108

SECRETARY OF EDUCATION
717-787-5820

January, 1992

Friends of Vocational Education:

Education redesign and restructuring continues to be a priority on many individual and group agendas. With the implementation of the Carl D. Perkins and Applied Technology Act (P.L. 101-392), we are experiencing a concerted effort to address criticial redesign themes. These include: the integration of academic and vocational content, the effective linking of secondary and postsecondary vocational-technical education, the involvement of business, industry and labor in educational curriculum planning, and the development of performance measures and standards.

Vocational-technical education in Pennsylvania is in a leadership position. It can help provide the Commonwealth's workforce with the skills and knowledge to sustain a competitive Pennsylvania economy. The Commonwealth has excellent facilities, programs and personnel. Also, vocational-technical education has been and will continue to be in a leadership role relating to outcomes-based education. This role supports the State Board of Education's efforts in revising Chapters 5 and 6 curriculum regulations. To bring about quality public vocational-technical education programs, an educational action plan has been developed that will guide the Department's efforts. The items in this plan that relate directly to vocational-technical education include:

- Expand high school based vocational education as satellites of area vocational technical schools;
- Expand the daily student population of vocational schools to include students over 21 years of age and provide reimbursement for these older students;
- Expand adult diploma certificates and similar non-degree programs through improved financial support for these programs;
- Consolidate and streamline state level administration of vocational education;
- Concentrate secondary and postsecondary vocational education programs on emerging local and state labor market needs;
- Provide secondary vocational students with a rigorous academic program;
- Improve coordination between secondary vocational programs and 13th and 14th year postsecondary programs (Tech-Prep);
- Define competencies required for each area of vocational study and list those competencies attained on the diploma;
- Expand secondary cooperative education, apprenticeship, work study, etc., to develop on-the-job work skills; and
- Study the efficacy of converting AVTSs to full-time, two-year (11-12) magnet schools, incorporating academic as well as vocational programs.

These action plan items support the need for redesign and restructuring, and address the need to provide the Commonwealth with a workforce that has the skills and knowledge to support a competitive Pennsylvania economy.

The Pennsylvania Department of Education supports a strong partnership with the Pennsylvania Council on Vocational Education to develop and redesign policies and programs to bring about quality vocational-technical education.

Sincerely,

Donald M. Carroll, Jr.

Donald M. Carroll, Jr.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
333 MARKET STREET
HARRISBURG, PENNSYLVANIA 17126-0333

(717) 787-2127

COMMISSIONER FOR ELEMENTARY
AND SECONDARY EDUCATION

January 6, 1992

Mr. Frederick C. Kerr
Chair
Pennsylvania Council on Vocational
Education
Suite 202, Harrisburg Transportation Center
415 Market Street
Harrisburg, PA 17101-2302

Dear Mr. Kerr:

During these times of great challenge and opportunity for growth in public education there are also large risks to be taken. While it is incumbent on us as public officials, educators and citizens to take those risks so that we may move forward as a nation and a society, it is our responsibility to take them as calculatedly as possible.

Because much of school restructuring is centered in or modeled by vocational education I approach the challenge, opportunities and risks with greater confidence than I otherwise might. The positive attitude, adaptability, skill and vast well of experience of Pennsylvania's vocational education community (all of which is well represented by the Pennsylvania Council on Vocational Education) helps assure me that such enormous tasks as implementing an outcome based curriculum, developing performance assessment for all children, and better serving those with special needs can and will be accomplished.

Sincerely,

Joseph F. Bard

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
333 MARKET STREET
HARRISBURG, PA 17126-0333

Dear Citizen:

The Bureau of Vocational-Technical Education has accepted the "challenge for change" in the preparation of a competitive workforce which is being called for by this administration, the State Board of Education, and the Perkins Vocational and Applied Technology Education Act of 1990 (The Perkins Act).

The Commonwealth's 87 secondary area vocational-technical schools, 513 vocational programs in comprehensive high schools, 47 post-secondary institutions offering occupational programs (including 13 community colleges); offer a "rich blend" of opportunities for our youths and adults to experience career success.

Currently, many of these institutions have formed consortia with one another and have submitted 187 plans which have been approved by the Bureau requiring them to improve vocational-technical education by integrating academic and vocational education in applied settings. These plans give priority to those programs which serve high concentrations of special populations. In addition, 14 comprehensive Tech Prep consortia models have been established and a variety of other creative and innovative delivery models involving collaboration with business, industry and labor have been initiated.

Current interest and excitement about these reforms which are starting to occur among those who are responsible for administering our vocational-technical programs suggest that we should not only experience significant enrollment increases in our vocational schools this year, but also marked improvement in the quality of education which is being offered.

We commend the Council for its efforts and support and look forward to continued excellent relationships as we work together to improve vocational-technical education for youth and adults in the Commonwealth.

Sincerely,

Ferman B. Moody
Director
Bureau of Vocational-Technical
Education

THE PENNSYLVANIA COUNCIL ON VOCATIONAL EDUCATION

The Pennsylvania Council on Vocational Education (PACVE) conducted its twenty-second year of activities in 1990-91. The Council was reestablished by the Carl D. Perkins Vocational Education Act (PL 98-524) in 1984. The Governor appoints the Council members. The 13 PACVE members included seven individuals from the private sector and six members from education. Two of the private sector members represented organized labor. Secondary and postsecondary education as well as career guidance and counseling were also represented by Council members.

The members of the 1990-91 Council were:

Andrée P. Phillips, Chair
President/CEO, Radiant Steel Products Company
Williamsport

Frederick C. Kerr, Vice-Chair
Director, Training and Program Development
Pennsylvania Farmers' Association, Camp Hill

Glenn A. Schaeffer, Financial Secretary
Business Manager, Local Union No. 143 IBEW
Harrisburg

The Rev. Dr. Bobbie Cromartie
Youth & Family Specialist,
Family Crisis Intervention, Pittsburgh

Diane Donaher
Customer Service
Pennsylvania Power & Light
Allentown

Dr. Patricia C. Donohue
Dean, School of Business,
Engineering & Technology
Harrisburg Area Community College, Harrisburg

Larry C. Eckstine
President, HEPCO Construction Company
Selingsgrove

Dr. Kenneth Gray
Professor-in-Charge, Vocational &
Industrial Education
Pennsylvania State University,
University Park

Dr. Marion B.W. Holmes
Executive Director, Career and
Vocational Education
School District of Philadelphia, Philadelphia

Thomas W. O'Brien
Director, Center for Vocational
Personnel Preparation
Indiana University of Pennsylvania, Indiana

Henry F. Plummer, Jr.
Training Coordinator
Steamfitters' Local Union 420, Philadelphia

Paul A. Sammartino
Teacher, Vocational Education/Special Education
Pittsburgh School District, Pittsburgh

Robert L. Wernicki
Assistant Vice President
First National Bank of Pennsylvania, Erie .

Andrée P. Phillips

Glenn A. Schaeffer

Thomas W. O'Brien

Dr. Patricia C. Donohue

Paul A. Sammartino

Dr. Kenneth Gray

Larry C. Eckstine

Dr. Marion B. W. Holmes

Frederick C. Kerr

Diane Donaher

Henry F. Plummer, Jr.

Robert L. Wernicki

Rev. Dr. Bobbie Cromartie

Responsibilities of the Council

The Carl D. Perkins Vocational Education Act of 1984 (PL 98-524) assigned specific responsibilities to all State Councils on Vocational Education, including the Pennsylvania Council on Vocational Education (PACVE). The Council's responsibilities are:

- conduct at least one public meeting each year at which the public is given an opportunity to express views concerning the vocational education program of the state.
- meet with the State Board of Education to advise on the State Plan for Vocational Education.
- review and comment on the State Plan prior to its submission to the United States Secretary of Education.
- advise the State Board of Education and make reports to the Governor, the business community and the general public of the state concerning:
  1. policies the state should pursue to strengthen vocational education (with particular attention to programs for the handicapped); and,
  2. initiatives and methods the private sector could undertake to assist in the modernization of vocational education programs.
- analyze and report on the distribution of spending for vocational education, in the state.
- analyze and report on the availability of vocational education activities and services within the state.
- furnish consultation to the State Board of Education on the establishment of evaluation criteria for vocational education programs within the state.
- submit recommendations to the State Board of Education on the conduct of vocational education programs in the state which emphasize the use of business concerns and labor organizations.
- assess the distribution of financial assistance furnished under the Vocational Education Act, particularly with the analysis of the distribution of financial assistance between secondary and post-secondary vocational education programs.
- recommend procedures to the State Board of Education to ensure and enhance the participation of the public in the provision of vocational education at the local level within the state, particularly the participation of local employers and local labor organizations.
- report to the State Board of Education on the extent to which special populations are provided with equal access to quality vocational education programs.
- evaluate at least once every two years the vocational education program delivery systems assisted under this Act, and under the Job Training Partnership Act, in terms of their adequacy and effectiveness in achieving the purposes of each of the two Acts.
- make recommendations to the State Board of Education on the adequacy and effectiveness of the coordination that takes place between vocational education and the Job Training Partnership Act.
- advise the Governor, the State Board of Education, the State Job Training Coordinating Council, the Secretary of Education and the Secretary of Labor of these findings and recommendations.
- consult with the State Board of Education on the development of model curricula to address state labor market needs. Technical committees are to develop an inventory of skills that may be used by the State Board of Education to define state-of-the-art model curricula.

The Pennsylvania Council on Vocational Education, through its various activities, addressed and met each of these responsibilities.

Audience for PDE/PACVE public meeting, November, 1990.

PACVE Activities

The members and staff of the Pennsylvania Council on Vocational Education conducted a variety of activities in 1990-91 to fulfill the responsibilities of the Carl D. Perkins Vocational Education Act of 1984. The Council also participated in other activities not specifically assigned to it by federal law, but which were determined to be in the interest of strengthening vocational education in the Commonwealth.

During 1990-91, PACVE members and staff were involved in the following activities:

- adopted five recommendations for presentation to the State Board of Education. These recommendations addressed:
  1. expansion of assessments of secondary vocational-technical education students.
  2. increased support for adult vocational education programs.
  3. review of need for postsecondary technical education programs.
  4. strengthening the vocational personnel development system.
  5. coordination of state administration activities.
- presented PACVE's 1989-90 recommendations to the State Board of Education.
- represented Pennsylvania at national meetings and conferences, participating in committee meetings and other activities with organizations including:
  - National Association of State Councils on Vocational Education.
  - American Vocational Association.
- represented PACVE at State and regional meetings and conferences, participating in activities with other educational organizations, including:
  - Pennsylvania Vocational Association.
  - Pennsylvania Association of Vocational Administrators.
  - State Job Training Coordinating Council.
  - Pennsylvania Chamber of Business and Industry.
  - Pennsylvania School Boards Association.
  - Pennsylvania Business Roundtable.
  - Pennsylvania Occupational Information Coordinating Committee.
  - Council for Public Education.
  - Community College Occupational Deans Committee.
  - Employers Advisory Council.
  - Pennsylvania State Education Association.
- participated in meetings and other activities of various committees and groups from the Pennsylvania Department of Education and/or the Bureau of Vocational and Adult Education, including:
  - State Board of Education.
  - Perkins Committee.
  - Pennsylvania Vocational Education Conference.
  - Agricultural Education Steering Committee.
  - Personnel Development Advisory Committee.
  - Future Directions in Home Economics Education Task Force.
  - Home Economics Image/Recognition Subcommittee.
  - Executive Director's Academy.
  - Business/Industry/Education Focus Group.
  - Governor's Conference on Business and Education.
  - Professional Standards and Practices Commission.
- participated in local advisory committee activities as requested.
- participated in meetings and activities with professional trade councils and associations.
- distributed PACVE handbooks on local and occupational advisory committees.
- made presentations to local advisory committees and to educational organizations on vocational education.
- conducted recognition programs for advisory committees (e.g. Local Advisory Committee Award of Excellence and Occupational Advisory Committee Award of Excellence).
- presented workshops at the Pennsylvania Vocational Education Conference.
- attended Department of Education forums on revisions to School Code Chapters 3, 5, and 6.
- cosponsored a public meeting on vocational education with the Pennsylvania Department of Education.
- planned and conducted a symposium on Integrating Vocational Education and Academic Skills Instruction.

Participants attending PACVE symposium, January, 1991.

- participated with various Department of Education committees to prepare the State Plan for Vocational-Technical Education and the State Equity Plan.
- continued to inform the educational community on critical issues including Declining Enrollments in Vocational Education and School Code revisions to Chapter 5: Curriculum and Chapter 6: Vocational Education.
- prepared and implemented a continuing information program for Council members with guest speakers at Council meetings, Council visits to schools and businesses, and Council participation in public meetings.
- participated in U.S. Department of Education programs for Perkins implementation.
- presented testimony to the Education Committee of the Pennsylvania House of Representatives.
- presented testimony to the Education Committee of the Pennsylvania Senate.
- published and disseminated two newsletters containing information on PACVE activities, legislation and regulations, and other developments in vocational education.
- developed the Biennial Evaluation report on vocational education programs supported by the Perkins Vocational Education Act and vocational education programs assigned by the Job Training Partnership Act (JTPA), and of coordination between vocational education and JTPA assisted programs and activities.
- developed and disseminated a PACVE Annual Report with information on Council responsibilities and activities, a statistical review of vocational education programs in Pennsylvania, and brief descriptions of new and innovative vocational education programs in the Commonwealth.

PACVE meeting, November, 1990.

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1991 Recommendations to the State Board of Education

The Pennsylvania Council on Vocational Education adopted five recommendations on vocational education at its June, 1991 meeting. The Carl D. Perkins Vocational Education Act (PL 98-524) required State councils to advise the State Board on policies the State should pursue to strengthen vocational education in the State. These recommendations were based on Council members' expertise, staff research, consultations with policymakers and other informed persons, and public comments presented at Council meetings.

The recommendations were presented to the State Board of Education in September, 1991, and subsequently were sent to the Governor, the Pennsylvania General Assembly, and other policymakers. The State Board's response to each recommendation follows Council's rationale for the recommendation.

Recommendation 1: Expansion of Assessments of Secondary Vocational-Technical Education Students

The Pennsylvania Council on Vocational Education recommends to the State Board of Education and the Department of Education expansion of the standardized process for measuring secondary vocational education occupational student competencies as provided in the Pennsylvania Skills Certificate Program. Vocational-technical education personnel should be provided instruction to enable them to conduct reliable and valid assessments.

Rationale:

PACVE believes it is appropriate and desirable for the skills of all students, including vocational-technical education students, to be systematically assessed against a high standard of achievement. A systematic measurement enables program administrators, employers, the general public, teachers and students to determine if (a) the program is succeeding in teaching skills needed in the various occupational areas and (b) students are acquiring skills at a level deemed appropriate.

Pennsylvania's State Board of Education, Department of Education and local administrators are to be commended for developing and implementing the Pennsylvania Skills Certificate program. Pennsylvania is justly recognized nationally for taking the lead in implementing a vocational skills assessment program. PACVE believes that this assessment process should be expanded to include all occupational areas and all vocational-technical education students.

PACVE believes the Pennsylvania Skills Certificate program fits well with the call for accountability for vocational education outcomes detailed in the Carl D. Perkins Vocational and Applied Technology Education Act of 1990. One of the requirements of the assessment system, to be implemented by September, 1992, is an assessment that measures "learning and competency gains." The Pennsylvania Skills Certificate program will enable Pennsylvania to have a strong start in the measurement of gains in occupational competencies. This, however, will require the test to be administered prior to students' vocational education instruction, and that the program be expanded to include all students and all vocational education programs.

PACVE recognizes that the validity of the assessment process depends partially on the ability of evaluators to conduct a reliable assessment. PACVE suggests that the institutions comprising the vocational education personnel development system include in their instruction methodologies of assessment and evaluation.

Panel members for public meeting, November, 1990.

State Board of Education Response:

The State Board for Vocational Education concurs with Council regarding the efficacy of the Pennsylvania Skills Certificate program as one potential measure of "learning and competency gains" called for in the Carl D. Perkins Vocational and Applied Technology Education Act of 1990.

The Board urges the Department of Education to explore necessary expansions of this program.

At the same time, the entire education community will shortly be engaged in the development of new and more authentic measures of student performance under proposed revisions of Chapters 3, 5, and 6 of State Board regulations. Training for all professionals will be needed in order to implement these changes.

Recommendation 2: Increased Support for Adult Vocational Education Programs

The Pennsylvania Council on Vocational Education recommends that the Pennsylvania General Assembly approve the request of the Governor, made in the 1991-92 budget proposal, to increase the reimbursement for adult vocational education programs offered in secondary education institutions to $13.60 per instructional hour. PACVE also recommends that the General Assembly support adult vocational-technical education through reimbursement of noncredit vocational FTEs (Full-Time Equivalents) at community colleges.

Rationale:

In philosophy and practice, the Commonwealth of Pennsylvania has supported the concept that occupational training and retraining for adults fosters economic development. PACVE believes that Pennsylvania needs a systematic program which provides training, retraining and upgrading skills needed to gain, or retain, gainful employment. This training also helps to support the economic vitality and competitiveness of employers, communities and the Commonwealth. Increased levels of financial support are needed by local education agencies to enable this system to be further developed and maintained.

Community colleges possess a baseline of support for vocational training programs through the noncredit "Full-Time Equivalent" stipend provided by the Commonwealth. This amount changes as basic funding levels are established, and has increased periodically. Continued funding will assure the availability of adult vocational programs and foster additional programs responding to community needs.

The current level of support provided by the Commonwealth for adult vocational education programs provided by secondary institutions, established at 80 percent of $4.00, or $3.20, per instructional hour, has not changed for more than 20 years. This level of support does little to enable local school administrators and boards to provide needed training. While the amount recommended by the Governor, 80 percent of $17.00, or $13.60, per instructional hour, will not cover the full cost of providing programs, it will provide greatly needed support.

PACVE recognizes that the recommended support, by itself, will not enable Pennsylvania to meet all the needs for additional postsecondary and adult vocational education services across the Commonwealth. It will, however, enable some of the needs to be addressed, and therefore should be implemented.

State Board of Education Response:

In November, 1990, the State Board for Vocational Education endorsed an increase in state reimbursement for adult vocational education programs offered in secondary schools. The Governor's 1991-92 budget proposal has been accepted by the General Assembly.

The Board has not examined the question of reimbursement for noncredit vocational courses in community colleges and does not intend to do so other than in the context of developing the Master Plan for Higher Education or reviewing Chapter 35 (Community Colleges) regulations.

Recommendation 3: Review of Need for Postsecondary Technical Education Programs

The Pennsylvania Council on Vocational Education recommends to the State Board of Education and the Pennsylvania Department of Education that an evaluation of the postsecondary technical education system be undertaken and completed to determine if needs exist for additional postsecondary technical education programs and services, and that policies and programs be recommended to address identified needs.

Rationale:

The Pennsylvania Council on Vocational Education continues to be concerned about the lack of systematic postsecondary technical education in various parts of the Commonwealth. It recognizes that various efforts now underway, including the establishment of community college branch campuses, establishment of a technical institute, and State Plan provisions for two career technology centers, will help to alleviate these needs. Additional steps need to be taken if all of Pennsylvania is to enjoy the benefits available to a community through the presence of a comprehensive postsecondary technical education facility.

PACVE urges the State Board of Education and the Department of Education to review the need for postsecondary technical education in the Commonwealth. PACVE further urges the State Board and the Department of Education to promote the expansion of postsecondary technical education programs in areas of the Commonwealth not adequately served.

State Board of Education Response:

The State Board of Education anticipates addressing this issue in the context of developing its Master Plan for Higher Education.

Recommendation 4: Strengthening the Vocational Personnel Development System

The Pennsylvania Council on Vocational Education recommends that the State Board of Education and the Department of Education review the State's vocational personnel development programs and modify programs, as may be required, to address needs identified in the review.

Rationale:

The quality and availability of skilled vocational-technical education personnel in school districts, AVTSs and postsecondary institutions determines the ability of vocational-technical education to meet the needs of Pennsylvania and its citizens. Given the critical importance of maintaining a high quality professional vocational-technical education personnel development system, the State Board of Education should undertake a review of the system to determine its strengths and weaknesses, and recommend any modifications needed to enable the system to meet Pennsylvania's vocational professional personnel development needs.

Participants in such a review should include local administrators, teachers and other personnel who depend upon the vocational personnel development system for services. The review should focus on programs, degree and nondegree, at both the preservice and inservice levels. The State Board should include in this review considerations of program availability, program consistency within and among institutions, and appropriateness of the programs' philosophies to the needs of the Commonwealth. Particular attention should be given to the supply of vocational-technical education teachers, the skills and competencies they need, and the skills and competencies presently being developed by vocational-technical education personnel development programs. The review should consider the establishment of a method to provide needed instruction which is not being provided by professional development institutions. Alternate means of delivering vocational education personnel development programs, including "distance learning" and other instructional strategies, should be considered.

The review will help clarify the Commonwealth's goals for the preparation of professional vocational education personnel, which may differ from the goals of a single professional development institution. The State Board and the Department of Education need to ascertain that the Commonwealth's vocational-technical education personnel development goals are being addressed and achieved.

PACVE also believes that criteria should be established for vocational-technical education professional development programs. Such criteria should assure that prospective vocational-technical education personnel receive instruction in designing and implementing competency-based instruction, meeting the academic needs of poor students, students with disabilities and educationally disadvantaged students, and removing sex bias and stereotyping in vocational-technical education.

State Board of Education Response:

The State Board of Education anticipates addressing this issue in the context of reviewing Chapter 49 (Certification of Professional Personnel) regulations.

Recommendation 5: Coordination of State Administration Activities

The Pennsylvania Council on Vocational Education recommends to the State Board of Education that the Department of Education make a concerted effort to use funds provided by the federal Carl D. Perkins Vocational and Applied Technology Education Act of 1990 for state administration purposes to enhance achievement of the goals established in the 1991-94 State Plan for Vocational and Applied Technology Education.

Rationale:

The State Board of Education established a number of worthy goals when it recently adopted the 1991-94 State Plan for Vocational and Applied Technology Education. The goals include integration of academic and vocational education, development of quality vocational and applied technology education programs and services, collaboration with employers, labor organizations, educational institutions, and other agencies, expansion of opportunities to participate in vocational and applied technology education programs, maximization of human resources and acceleration of personnel development efforts, and provision of systematic assessment and evaluation of vocational and applied technology education programs. PACVE supports these goals. PACVE believes that the federal funds available for state administration should be used, for the most part, to achieve these goals.

Some of the funds available for state administration have traditionally been subcontracted for such functions as personnel development, curriculum development and research. PACVE supports the use of funds for these activities, as they are essential for the maintenance and strengthening of the vocational-technical education system. PACVE urges that these funds not be viewed as discretionary funds, but that they be managed in a way that enhances achievement of the State Plan goals.

Implementation of the recommended policy would enable efforts supported with state administration funds to have a greater impact, as the efforts would be mutually supportive. Such a policy would also increase the likelihood that the State's vocational-technical education goals are achieved.

State Board of Education Response:

The State Board for Vocational Education concurs with Council and urges the Department of Education to use all available state and federal funds, consistent with appropriate statutes and regulations, to advance the goals set forth in the 1991-94 State Plan and in related state regulatory changes.

Participants on Perkins Committee, November, 1990.

PACVE POSITIONS ON SPECIAL ISSUES

During 1990-91, PACVE members and staff were actively involved with several important educational issues that will have a direct impact on vocational education in Pennsylvania. A brief description of some of these issues follows.

REVISIONS TO CHAPTERS 5 AND 6 OF THE PENNSYLVANIA SCHOOL CODE

In 1989, the Pennsylvania State Board of Education initiated a process to review existing regulations governing curriculum and vocational education. These regulations are found in Chapters 5 and 6 respectively of the Pennsylvania School Code. They define curriculum and graduation requirements for students and govern student access to classes and programs.

During 1990-91, PACVE continued to participate in the two-year regulatory review. The State Board of Education held numerous committee meetings and public meetings to solicit comments on revisions. As each new draft was announced, PACVE members and staff reviewed it and prepared comments to the Board to address concerns.

Participants attending PACVE symposium, January, 1991.

Final comments were submitted to the Education Committee of the Pennsylvania House of Representatives on January 6, 1992. New regulations were approved by the State Board of Education in March, 1992. Concerns with these regulations most often cited by PACVE throughout the review and revision process included the following:

1. The State's Quality Goals of Education stated in Chapter 5 should include a specific reference to students' acquisition of occupational skills.
2. Chapter 5 should be considered for adoption in its entirety with student learning outcome statements included, rather than regulations and outcomes being adopted separately. The out come statements should be comprehensive and in language understandable to students, parents, teachers and the general public.
3. Elimination of the general track as an option for high school students will strengthen student choices in academic and vocational education, enhancing preparation for work or higher education.
4. Technology Education should be offered to all students at the high school level. It provides students with an opportunity to learn the language of production and technology, principles of communications, energy, force and motion, manufacturing and other goods-producing processes, and other applications of science and mathematics.
5. The proposed requirement that all students demonstrate the ability to communicate in a foreign language has not been justified.
6. The development of Career and Educational Objectives for students enrolled in a vocational-technical education program is a reasonable and desirable requirement and should be extended to all students. All students could benefit from a process which causes them to develop and evaluate career and educational objectives.
7. Strategic plans of school districts and AVTSs should include a description of the process that will be used to coordinate secondary vocational-technical education programs with postsecondary occupational education programs.

Dr. Gene Bottoms, keynote speaker at PACVE symposium, January, 1991.

Presenters from Philadelphia City School District, PACVE symposium, January, 1991.

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INTEGRATING ACADEMIC AND VOCATIONAL SKILLS INSTRUCTION: A SYMPOSIUM

The Pennsylvania Council on Vocational Education conducted a symposium on the integration of academic and vocational education on January 17-18, 1991. The topic was chosen to address many of the questions administrators and teachers had concerning the new initiative described in the Perkins Vocational and Applied Technology Education Act of 1990.

The Symposium program was designed to provide practical information on why and how integration can be implemented. More than 350 people attended from across the State. This audience included superintendents, principals, teachers, curriculum specialists and school board members from more than 50 school districts and 42 area vocational-technical schools, legislative committee staff, Department of Education personnel, faculty from seven colleges and universities, educational research offices, representatives of education-related state associations, and legislators.

Speakers at the Symposium addressed the relationship between academic and vocational skills instruction, the impact of economic change on the skills required for productive employment, the intent of the U.S. Congress toward integration as presented in the Perkins legislation, and the experience of one state systematically integrating academic and vocational instruction in its secondary schools. The Pennsylvania Department of Education also presented information describing resources and technical assistance available for implementing integrative activities. Featured speakers included:

Dr. Thomas Bailey, Associate Research Scholar at Columbia University.

Dr. Gene Bottoms, Director, Southern Region Education Board-State Vocational Education Consortium.

Dr. Darrell Parks, Director of Vocational and Career Education for the State of Ohio.

In the Summer of 1991, Pennsylvania joined the Southern Region Education Board (SREB), which was highlighted at the symposium. The SREB is a consortium formed to help its member states effectively pursue an initiative to improve the communications, mathematics, and science competencies of students pursuing secondary vocational education programs. Member states work to bring vocational students' achievement in these basic skills to the national average by the year 2000. Students should be able to demonstrate a significant increase in achievement test scores in basic skills within two years. Six school districts are receiving financial and technical assistance to participate in pilot projects to integrate their curriculums.

The Symposium was cosponsored by the Bureau of Vocational and Adult Education, Pennsylvania Department of Education, endorsed by the Pennsylvania Association of School Administrators, and supported by the Pennsylvania Association of Vocational Administrators.

A videotape of the Symposium was completed. The Vocational Administrators of Pennsylvania (VAP) Foundation managed the sale and dissemination of the videotape.

Speakers and guests attending the PACVE symposium, including (l. to r.) Dr. Ferman Moody, Mrs. Moody, Donald M. Carroll, Jr., and Dr. Kenneth Gray.

ON-SITE COMPLIANCE REVIEW FOR VOCATIONAL EDUCATION

In Pennsylvania, vocational education programs are operated and evaluated according to criteria of Chapter 339 Standards to Chapter 6 Regulations of the State Board of Education, effective since September 1986. Procedures require an on-site visit to selected school districts and area vocational-technical schools to review compliance with these Regulations and Standards.

For the on-site reviews, review team members use a checklist to record noncompliance and compliance with the requirements. These requirements include Chapter 339 Standards to Vocational Education Regulations and the "U.S. Office for Civil Rights (OCR) Guidelines for Vocational Education Programs." Items in the Standards and Regulations compliance checklist can be grouped into two major categories. They are: (1) items pertaining to the overall institution and (2) items pertaining to individual programs within the school. As in the previous year, the Standards and Regulations portion had 67 items for review and the OCR portion has 68 items.

It is difficult to make direct comparisons of findings from year to year. Conclusions should not be drawn without an in-depth analysis of various institutional reports. It is not unusual for a school to have areas of noncompliance. Very minor violations must be reported as noncompliance, even if the situation occurs in only one program in a school. Following the review, each school develops a plan to remedy noncompliance items.

During the 1990-91 school year, 25 school districts and 10 area vocational-technical schools (AVTSs) were selected for on-site compliance reviews.

Summary of School District Findings

Of the 25 school districts selected for review, ten school districts had only the Standards and Regulations evaluation, 18 had only the Civil Rights evaluation and three school districts had both. Seventeen items of noncompliance were found in 30 percent of the school districts reviewed. Fourteen items of noncompliance concerned OCR regulations regarding dissemination of information and the removal of physical barriers. The remaining noncompliance items were violations of administrative issues regarding competency-based curriculum.

Vocational program administration items most frequently not complied with include:

1. Public notice of special provisions for Title IX and Section 504 programs and staff must be available to all special populations.
2. Appropriate dissemination of nondiscrimination policy.
3. Program offerings and eligibility, policies, etc., must be available to visually impaired persons.
4. Procedures adopted and implemented assuring all persons, including those with impaired hearing or vision, have access to information on activities and facilities accessible to and usable by all handicapped persons.
5. A Section 504 transition plan to identify structural barriers and a plan/timetable to make changes for accessibility, including consultation with handicapped representatives.
6. Nondiscriminating employment practices for employees and applicants.
7. Recruitment and promotional materials convey the philosophy of equal access to potential vocational students.
8. Programs consist of planned vocational courses, including performance standards.
9. School has conducted a Section 504 self-evaluation with input from handicapped populations.
10. Program content based upon performance objectives as recommended by occupational advisory committees.

Summary of Area Vocational-Technical School Findings

Twelve items of noncompliance were found in 30 percent or more of the area vocational-technical schools (AVTSs) reviewed. Five of these items related to Standards and Regulations and were most frequently concerned with competency-based instruction and its implementation in the classroom. Seven noncompliance items related to the civil rights review. These cited deficiencies in administrative issues governing policies for students and employees.

Vocational program administration items most frequently found in noncompliance include:

1. Use of discriminatory criteria in admissions policies must be justified.
2. Public notice of special provisions for Title IX and Section 504 programs and staff must be available to all school personnel, students, special populations and the general public.
3. A Section 504 transition plan to identify structural barriers and a plan/timetable to make changes for accessibility has been prepared when barriers have been indentifed.
4. All persons should be treated equally with respect to leaves of absence.
5. Avoidance of contractural provisions which may subject applicants or employees to discrimination.

6. Each vocational program consists of planned vocational courses, including practices of competency-based instruction, and classroom management by the teacher.
7. The written admissions policy should include nondiscriminatory eligibility requirements if enrollment must be limited.
8. The written admissions policy includes eligibility criteria which will not penalize applicants who have not achieved high grades in academic subjects but otherwise qualify.

Source: *"On-Site Compliance Review for Vocational Education* — A Summary of Findings for the 1990-91 School Year", Bureau of Vocational-Technical Education, Pennsylvania Department of Education.

PACVE member and chair, Andrée Phillips with symposium speakers (l. to r.) Dr. Thomas Bailey, Dr. Gene Bottoms, and Dr. Darrell Parks.

Ken Swatt and Harry Frank, from PDE, update council members on new Perkins legislation during November, 1990 PACVE meeting.

Dr. Marion Holmes presents testimony on behalf of Philadelphia City School District during public meeting, November, 1990.

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PUBLIC INSTITUTIONS OFFERING VOCATIONAL EDUCATION PROGRAMS

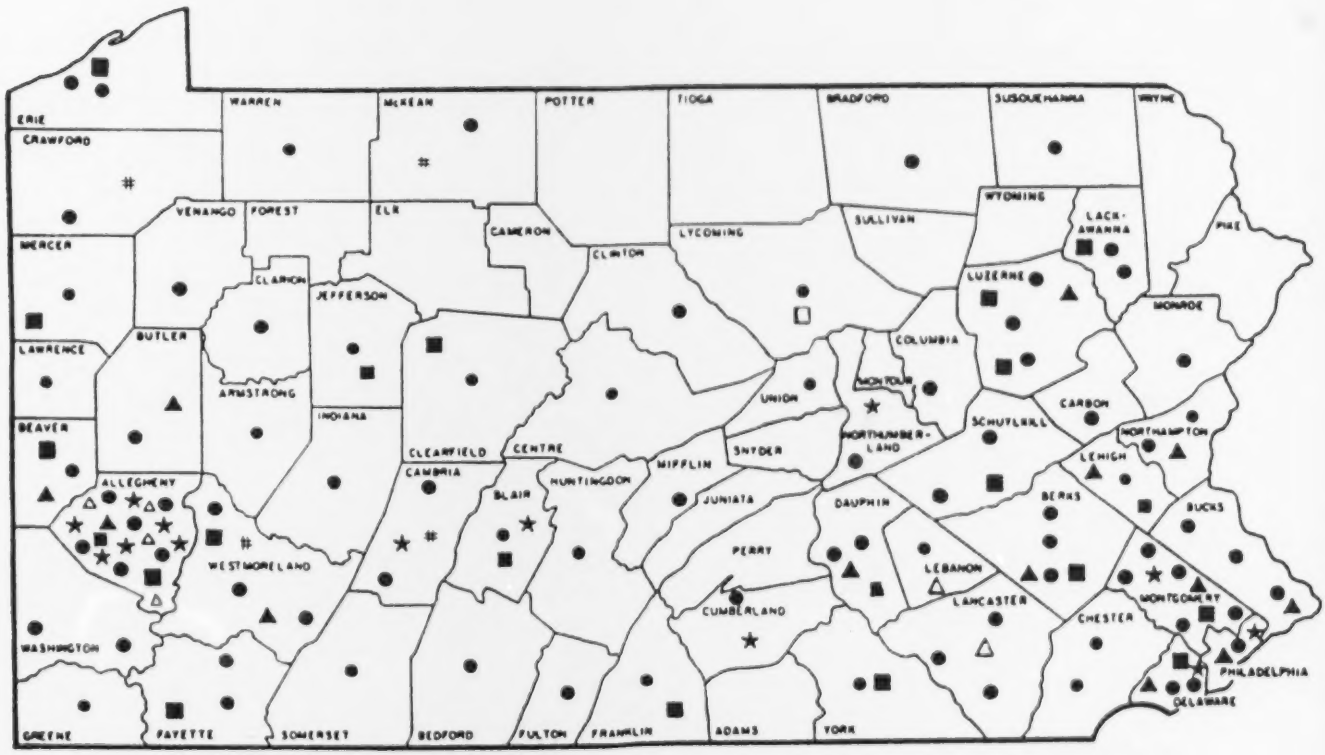
A variety of public institutions offer secondary and postsecondary vocational education programs. The following descriptions and map identify the types and locations of some of these facilities.

Area Vocational-Technical School (AVTS) — A shared-time facility providing instruction only in vocational education to students throughout a school system or region. Students receive the academic portion of their education program in regular high schools or other institutions.

Branch Campus — An extension of a larger degree granting college or university, offering two-year postsecondary degree/certificate programs in general and vocational education, and providing an opportunity for transfer to higher education institutions.

Community College — A two-year postsecondary degree granting institution offering a comprehensive program of instruction in both general and vocational-technical education and offering a transfer program to higher education institutions.

Comprehensive High School — A high school offering programs in five or more vocational programs where the majority of students are not enrolled in vocational education.



87 • Area Vocational-Technical Schools (includes 2 adult AVTSs)
13 ▲ Community Colleges
21 ■ Penn State Branch Campuses
6 △ Branch Campuses of Community Colleges
4 # University of Pittsburgh Branch Campuses
13 ☆ Comprehensive High Schools Offering Five or More T&I/ Technical Programs.
□ Pennsylvania College of Technology

Note: There are several AVTS sites in Philadelphia. There are also several comprehensive high schools in Philadelphia and Pittsburgh that offer full vocational programs.

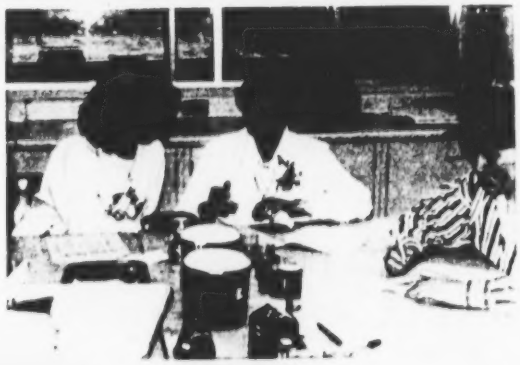
Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

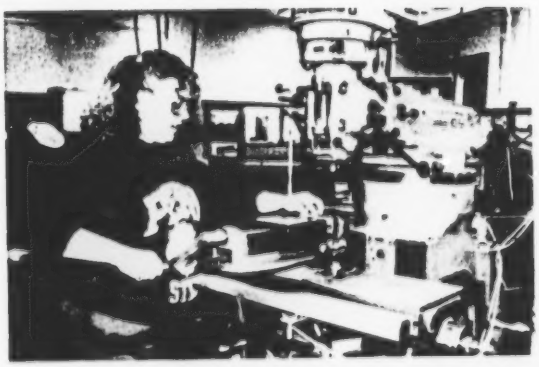
VOCATIONAL PROGRAM HIGHLIGHTS

The Pennsylvania Council on Vocational Education (PACVE) is pleased to present a brief review of vocational education programs in Pennsylvania. Programs described here provide examples of some of the outstanding, quality programs operating in the state's vocational education system.

Collectively, these descriptions provide examples of innovative programs in advanced technology, home economics, community service, student recruitment strategies, integration of academics and vocational education, nursing, adult education, cooperative efforts with employers and coordination between secondary and postsecondary programs.

PACVE commends vocational educators, school administrators, teachers, educational support personnel, Job Training Partnership Act personnel and their colleagues in the private and public sector who are providing these services and who are working to meet the needs of youths and adults in their communities, and who are responding to the needs of employers for well-educated and skilled employees.





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Nazareth Area Junior High School

Home Economics Classes Serve Communities At Home and Abroad

The Home Economics program at Nazareth Area Junior High School is involving its students in citizenship and community service by practicing the skills they learn in Nutrition, Child Development and Clothing Construction. In response to their community being asked to help those in need in this country and in other countries, teachers and students in this school have put their classroom skills to practical application.

The Home Economics program offers a course in Teen's Coping Today, a three-credit elective course with units in human development, consumer education and sewing. A class project for this course was to make ABC Quilts (At-Risk Baby Crib Quilts) for young children infected with the HIV virus. Students worked in groups to make seven quilts, each one complete with a personal message from the students who made it. Students learned appropriate sewing skills, increased their self-esteem by helping someone else, and practiced cooperative learning.

Instead of sewing clothes for themselves, these same ninth grade students chose to make clothes for orphans in Uganda, Africa as a class project. Each student made three pieces of clothing — simple dresses, pants or shirts. Fabric and patterns were donated by local businesses. The finished garments were donated to "Project Mercy" for distribution.

Seventh graders spent three days baking Superbars, a vitamin-packed food supplement for malnourished Honduran children. The bars contain large quantities of vitamin A and will be served with a cup of milk once a day to the most severely malnourished children. Most of the ingredients were provided by a local non-profit service organization. Students made 1,920 bars and packaged them for shipment to Honduras. One of the topics covered in this Home Economics class was world hunger and the uneven distribution of food resources around the world.

Environmental Foods

Every spring the Nazareth School District takes its ninth grade to Jacobsberg State Park for four days. The staff includes a home economics teacher, a math teacher, two social studies teachers and two science teachers. For the home economics activity, students learn how to forage for food, identify plant parts using common foods, and identify and draw wild edible plants. They participate in a tasting experience with candied violets and dandelion and catnip teas. The goal is to make students aware of wild edibles and learn cautions as in the case of mushrooms. With back packing being very popular, knowledge of environmental foods can make the load lighter.

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TMR Class a Resource for Students

In one of their home economics classes at Nazareth Area Junior High School, students discuss various handicaps and how people must adapt to cope with them. In cooperative learning groups the students plan and implement an activity with TMR (Trainable Mentally Retarded) students such as making puppets, teaching a game or conducting a simple foods lab. Students become the teachers and are responsible for working out teaching methods, patterns and directions. The home economics students have found their day with the TMR students one of the most enjoyable school days of the year.

Started in 1985, this activity has developed into an IU (Intermediate Unit) Helper Program. Students give up their study halls to work in the IU room. There are so many volunteers they can work only one period a week for one marking period.

The goal is to teach human awareness and compassion. Students demonstrate these traits many times in the halls, during fire drills, at dances, and during other school activities.

Butler County AVTS

Student Newsletter Helps Recruitment

The guidance counselor from the Butler County AVTS visits each sending high school between December and March to talk with tenth graders about the AVTS course offerings. Students interested in attending the AVTS the following September are asked to submit an application. Applicants tour the AVTS to solidify their first choice lab or shop selection.

About two weeks prior to the counselor's visit, an AVTS newsletter is mailed to all tenth grade students. The newsletter is designed to introduce potential students to the AVTS programs and includes a description of each shop area. Students and their parents have time to look through the newsletter and talk about career options before the counselor's visit and the tour of the AVTS.

Delaware County Technical Schools

Technical Training Support Program

The Delaware County Technical Schools have developed a training program for adult citizens of Delaware County and surrounding areas. The program offers basic skills remediation and prepares individuals to enter the work force. It exemplifies cooperation among various public service providers to meet the needs of citizens.

The program receives suggestions from employers, businesses and educational institutions to assure that individuals receive the skills and instruction needed for success in postsecondary technical education programs or employment. Clients may choose between postsecondary technical or health-related education, or employment in the field of machine tool technology. The intent of the program is to initiate the formation of cooperative groups representing the automotive and food service industries.

Clients receive an intense, progressive, and sound educational program consisting of occupationally oriented mathematics and communications as well as vocational skill instruction. They also receive instruction in computer literacy, job search and readiness, critical thinking, and current events.

The Pennsylvania Office of Employment and Training has cooperated by providing training allowances, clerical help, and advertisements. The County Assistance Office has worked to refer suitable clients and provide transportation and child care services to eligible individuals. A linkage formed with the Delaware Valley Industrial Resource Center (DVIRC) and other independent employers provides technical assistance to the training program and job placement opportunities for all qualified graduates.

The program started as a pilot for the Ben Franklin Technology Center at Penn State and may become a part of the new Job Link initiative.

Carbon County AVTS

Articulation With Postsecondary Institutions

Carbon County AVTS has developed an articulation agreement for their Electronics program with Lincoln Technical Institute in Allentown and Lehigh County Community College in Schnecksville. The agreement was developed to provide a smooth transition for students completing requirements at the AVTS to a postsecondary institution with advanced placement.

Articulation efforts involve key personnel from all participating institutions. On the secondary level, the AVTS director and faculty assure requirements for course completion and graduation are met. The director and instructors at the postsecondary institutions determine appropriate placement for students completing AVTS programs, which differs from the place-

ment of students with little or no previous instruction in their program of choice.

Through a series of discussions, terms of student placement in the postsecondary program can be identified. This is the basis for an articulation agreement. When consensus is reached on the overall goal of the agreement, and enabling and terminal objectives are finalized, the articulation document is ready to be signed. The document may include qualifications for participation such as completion of a specific secondary program, maintenance of a specific grade point average, teacher recommendations or evaluations required on specified tasks, and acceptable scores on required standardized tests.

The program provides several advantages to the student, including lower cost and less time to complete. Students with limited time and money are attracted to these types of programs on the secondary and postsecondary level.

Center for Arts and Technology

Child Care Program Offers Many Options

The Child Care program at the Center for Arts and Technology, Brandywine Campus, Coatesville, is located in the same building as five Head Start classes, within walking distance of a Governor's Model Infant Toddler Center and across the street from a facility serving handicapped children. The program, which began in 1985, also operates its own laboratory preschool.

First year students assist in the Head Start classes. Second year students gain experience with infants and toddlers. Students demonstrating interest and aptitude for working with special needs children have the option to do so. Third year students have additional options, including co-op employment and clinical experience in elementary schools.

Students are involved in co-curricular activities with FHA/HERO (Future Homemakers of America/Home Economics Related Occupations). Each year, every secondary student is required to enter a local competition for Child Care services and all first year students are required to participate in a job interview. Evaluation instruments used for these events are the same or similar to those used for state and national competitions. Local students have received state and national recognition for participation in projects, STAR (Students Taking Action with Recognition) Events, election to state office, and for completing the individual program for self improvement, The Power of One.

Students are recognized for being active in the community. They have presented a handicapped awareness program using puppetry to more than 500 preschoolers. At the request of the community, students are developing a dramatic presentation on the topic of household poisons, which will be presented at the Chester County Child Health Festival.

The program is supported by a competent and active occupational advisory committee. Committee members serve as guest speakers, resource personnel, and judges for competitions.

Upper Darby School District

Teaching Life Skills

The Home Economics program in the Upper Darby School District serves more than half of the district's students at the high school level. Teaching life skills is the focus of the Home Economics program. Some of the practical activities that have been incorporated into classroom learning include an advanced food preparation class that combines culinary skills with practical business skills by learning how to establish and operate a small business. A creative crafts course allows students to develop individual creativity and self expression, and also teaches them how to make crafts for profit. Seniors have the option for a Professional Field Experience, to spend part of their school day participating with a community agency as an unpaid volunteer/observer in the professional career area of their choice.

To promote the Home Economics Department mission of strengthening individuals and families, teachers and students have placed great emphasis on community service. Students have become involved with local service agencies to collect canned food and clothing for local shelters and homeless families, preparing and serving soup and other food at local shelters, donating proceeds from fund-raising activities to local agencies in need, making hand puppets to accompany story books donated to a children's hospital and many other activities. The Home Economics classes have also tried to increase awareness of citizenship and community responsibility as students become involved with identifying themselves as resources, responsible for themselves and others.

Carlisle Area School District

Vocational Education Exploratory Summer Camp

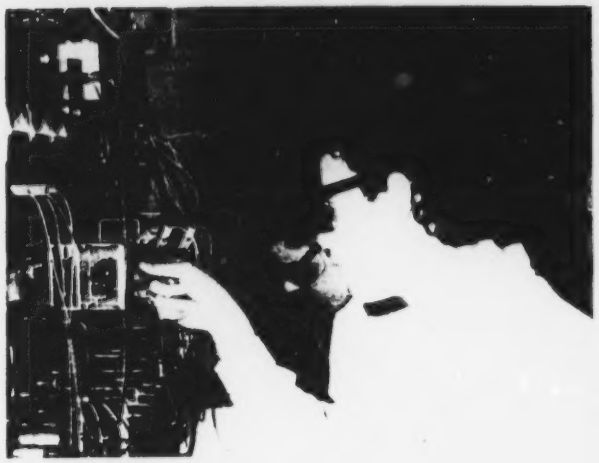
In the Summer of 1990, the Carlisle Area School District opened six vocational programs to seventh and eighth grade students for two weeks. The camp was a way to encourage early student interest in vocational education.

The camp was conducted for two weeks as an enrichment course for all students completing grades seven and eight. Students registered with their counselors and elected a program for six areas: Carpentry, Masonry, Electrical Occupations, Machining, Auto Mechanics, and Mill & Cabinet. Students could elect all six areas or any combination of the six. The classes met for two consecutive weekdays for four hours each from 9:00 a.m. to 1:00 p.m. Advertising was handled through the middle school newsletter, guidance counselors, and local newspaper articles.

The cost of registration was $20. If the student attended all courses he/she originally registered to attend, a $10 refund was received at the completion of the exploratory classes. The content in all areas was designed to be enjoyable and give students an appreciation for an occupational area. Class projects emphasized the "hands on" side and deemphasized the "theoretical" side. For example, in the electrical area, students built a tuneable electronic organ. In the mill and cabinet area, each student built a footstool which resembled his/her feet. In the machine occupations lab, students did some simple turning and welding to produce an insect sculpture.

SOCAT Testing

During the 1990-91 school year, Carlisle Area School District added Auto Mechanics and Child Care to the list of six occupational areas which voluntarily participate in the Student Occupational Competency



Achievement Test (SOCAT). Carlisle offers the test to seniors who volunteer to take it. Unique scheduling allows students to take part of the test during school time.

The test is scheduled with the academic test on Thursday during class time, Friday for the written occupational test during class time, and Saturday at 8:00 a.m. for the practical occupational test. Members of various occupational advisory groups attend the Saturday sessions to assess student mastery of occupational skills. During the 1990-91 school year more than 50 percent of students voluntarily taking the achievement test qualified for the Governor's Skills Certificate. The awards were presented during a senior awards banquet and gave the students taking the exam a feeling of accomplishment and pride.

The SOCAT, in combination with the Pennsylvania Skills Certificate, provides great opportunities for the participants. Employers willingly volunteer their time and, in many cases, materials to attend a Saturday testing event and evaluate the students. Employers also benefit by viewing first-hand what the students are capable of doing. In some cases, job offers are made that Saturday at the lunch break of the SOCAT TEST. Teachers benefit from close relationships with local businesses. This contact promotes informal discussions about changes in the occupation and changes that should take place in the curriculum. Students benefit by having the opportunity to work under pressure, to be critiqued by competent tradespeople in their chosen occupation and to have the sense of accomplishment which they receive in competing with their peers for a Governor's Skills Certificate.

Salisbury Township School District

Nutrition Science

In the fall of 1990, Salisbury High School introduced a course to address the scientific aspects of food and nutrition, Nutrition Science. The course was intro-

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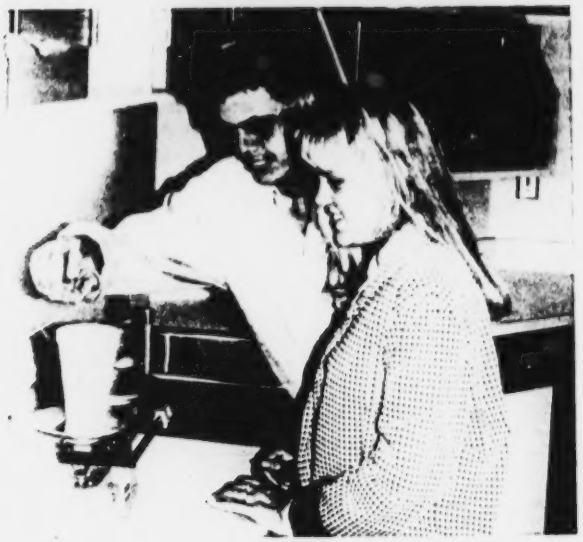


duced as a science credit elective. It was taught by a team with a science teacher and a home economics teacher. The pilot course was based on Pennsylvania State University's Food Science curriculum and Nutrition Science Summer Institute.

The course covers such concepts as dietary concerns, global nutrition, energy balance, food additives, argricultural influences on ecology, and food-borne illnesses. Class discussion and laboratory experiments include the investigation of foods and analysis of foods' cholesterol, sodium, and fiber levels. Class activities include experiments with food substances which allow analysis of the carbohydrate, protein and fat content of different foods.

Beyond the classroom, students traveled to St. Luke's Regional Heart Center in Bethlehem to explore the relationship of diet to heart disease. The class visited the Pennsylvania State University campus to attend seminars on career opportunities in the fields of nutrition and food science. The class also visited the Rodale Press in Emmaus to tour their experimental farm.

Philadelphia School District

Updated Home Economics

Students at the McCall school in Philadelphia's historical district have the opportunity to participate in activities that use community resources to meet their varied cultural needs. Students in grades six through eight participate in the Home Economics program.

The Program has developed a collaborative learning technique, allowing students to work in groups of three. The manager of the local grocery store welcomes the students to complete a number of class activities in the store. Supervised by their teacher, students gather information on a number of foods and then return to the classroom to complete assignments.

Some of the student visits encourage interaction with other shoppers as some shoppers seek advice from the students and vice versa. Consumer emphasis is on reviewing a variety of brand names in food items, unit pricing, and metric terms. Students also learn how to use food advertisements found in local newspapers to help them make selections at the store.

The collaborative effort works well with students of varying abilities, language backgrounds, and other cultural differences. Such efforts in the classroom have lead to improved grades, increased enthusiasm for learning and cooperative relationships.

Franklin County AVTS

Student of the Month

The Franklin County Area Vocational-Technical School and the Greater Waynesboro Chamber of Commerce have been working together to honor a Waynesboro "Student of the Month." During the 1989-90 school year, the Chamber decided to start the program with Waynesboro Senior High School students enrolled at the Franklin County AVTS.

A committee of AVTS administrators and teachers selects the student each month. The student is matched with a Chamber businessperson in the same field as the student's area of study. The two spend time together in both the business environment and at the AVTS. While at the school, the business person visits the student's shop area, takes a tour and has lunch with the student.

Students are recognized by the Community Awareness Committee of the Chamber for achievements in their particular area of vocational-technical training, as well as for their academic abilities at their home school. Each Student of the Month is given a plaque and a $50 Savings Bond by the Waynesboro Chamber.

In addition, the local newspaper photographs the student and issues a news release.

The Chamber selected this project to make the community more aware of the AVTS and school district efforts to train and educate young people in the technical and trade areas.

Montgomery County Community College

Consortium for Technical Education

On July 1, 1990 a new era of cooperative and collaborative education began in Montgomery County, when five vocational-technical schools and the Montgomery County Community College joined their talents and resources to form a technical consortium.

Concern existed throughout the County that there was unnecessary duplication of programs at the technical school level and that the Community College was not involved in technical education. The business and industry community were concerned about the lack of trained workers entering the work force.

The Montgomery County Consortium for Technical Education set out to do several things. First, a study of the programs at both the vocational-technical school level and community college level was completed to determine where unnecessary duplication existed and to identify voids. Secondly, the Consortium needed to know the specific needs of business and industry in the County. This information was obtained by establishing an advisory council for each program. The councils examined courses and programs at both the secondary and postsecondary level and commented on the relevancy of the programs to their particular industry. A DACUM task analysis process was used to identify needed curriculum content.

After the study of educational programs and industry needs is complete, educational programs in technology will be designed to meet these needs. These programs can begin as early as the ninth grade and extend through completion of an Associate Degree at the Montgomery County Community College.

An Automotive Technology program is being implemented. Chemical Technology, Environmental Technology, Engineering Technology and Electronics Technology are in their final phases of development and are expected to be in place by September, 1992. Nine other technology programs are being designed.

After one year, vocational-technical schools are working together to make their programs more relevant and cost effective. Through Tech Prep, technical school courses can now be college preparatory courses. The regular academic high schools have become interested and involved; the Chemical Technology and Environmental Technology programs are being offered at their sites. An applied academics curriculum is also being implemented and several high schools have reduced their instructional tracks to two — College Prep and Tech Prep.

Pennsylvania College of Technology

Instructional Technology Project

The Pennsylvania College of Technology completed the first year of a five-year effort designed to strengthen faculty skills in Instructional Design and Technology-Based Instruction. The goals of the Instructional Technology Project are to develop faculty knowledge and application of instructional design and instructional technology, and to improve student learning through increased access to technology-based learning environments that better meet individual student needs.

Title III funds and colleges resouces provide faculty with an effective support system of release time.

equipment, personnel, training and learning experiences. Faculty use these resouces to improve instructional design and delivery, and to move learning beyond the bounds of the traditional classroom.

Three learning modules are complete, with three more scheduled for completion each semester over the next four years. Among those projects specifically focused on vocational programs, students are now using the following technology-based learning systems:

Human Skeletal Anatomy — The team developed over 200 images students can access to study bones of the skull. Students can study the skull from several perspectives and assemble a skull onscreen.

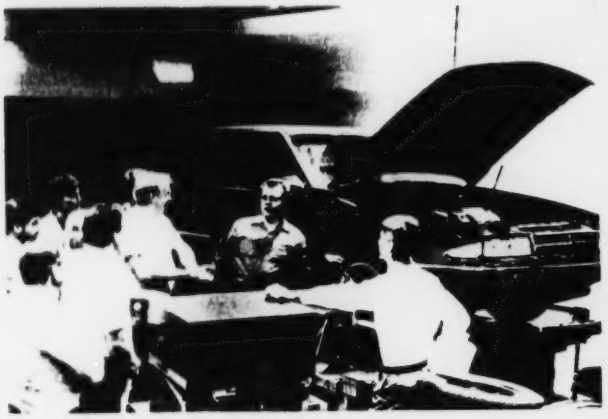
Wiring Diagram Symbols — This multimedia project will help students read schematics and visualize associated electrical components. Using a mouse interface, students can choose to see the symbols, view full-color images of devices, read text descriptions of the functions of the equipment, and get troubleshooting tips and online help.

Plant Identification — This horticulture project will help students identify major species and varieties of plants by providing access to an electronic library of images and diagrams. Students will navigate through characteristics of the plants to compare and contrast the subtle differences between the species. This module will serve as the prototype for additional multimedia plant identification systems.

Eastern Montgomery County AVTS

I-CAR Services for Auto Body Industry

The Inter-Industry Conference on Auto Collision Repair (I-CAR) offers certification workshops for employees of local auto collision repair shops at Eastern Montgomery County AVTS. It is the only site in eastern Pennsylvania to provide this opportunity by I-CAR.



I-CAR is a nonprofit educational organization created in 1979 by industry representatives to provide current collision repair training. An auto body teacher at the AVTS is an I-CAR instructor for unibody repair.

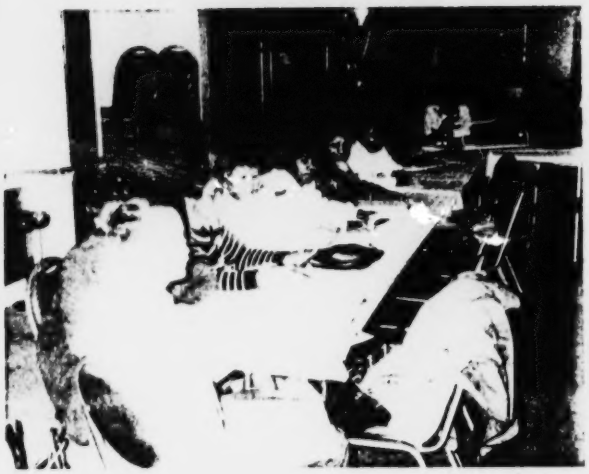
I-CAR programs have been endorsed by automobile manufacturers and insurance companies throughout the world. In 1991, the Delaware Valley Collision Specialists awarded an I-CAR workshop scholarship to an outstanding senior in the auto body program at Eastern Montgomery County AVTS.

Philadelphia Hospital Training and Upgrading Fund

Pre-Nursing Program

In order to meet the critical shortage of nurses, the National Union of Hospital & Health Care Workers proposed to prepare current hospital workers to enter nursing school. This group of workers is adults, long out of formal education, mostly minority and female. To overcome the educational deficiencies of most workers, the Fund developed a 17-week curriculum with a Perkins grant for disadvantaged students from the Pennsylvania Department of Education. The basic curriculum has been modified to meet the needs of many different student groups. The course has been conducted as a full-time program for workers, as a part-time program after work, and as a full-time program for the unemployed in a Private Industry Council (PIC) class.

Graduates of the course are prepared for study as registered nurses or as licensed practical nurses. Several groups of nurses aides from nursing homes were trained in a part-time program supported by the Bureau of Vocational and Adult Education. One class was the result of a collaborative effort with the City of Philadelphia and its union, the American Federation of State, County and Municipal Employees. These students were employees of the Philadelphia Nursing Home and upon graduation, attended the James Martin School of Practical Nursing. Their tuition was



paid by the City of Philadelphia in return for a commitment of service to the nursing home.

Approximately 300 students have completed some form of the course. Union members who complete the program are eligible to apply for a full scholarship or tuition reimbursement from the Training Fund to attend nursing school. The Fund also enters into agreements with various area hospitals to support nursing students in return for service commitments.

Central Montgomery County AVTS

Fifth Grade Insight-Onsite Program

In the spring of 1991, administrators from Colonial, Norristown and Upper Merion School Districts met with administrators from the Central Montgomery County AVTS to explore various ways of integrating applied academics into all curriculum levels. Norristown School District developed a pilot program for all students from one grade level to relocate to the Technical School for one week. At the Technical School, a team of teachers would provide instruction in a practical world-of-work setting.

The intent was to demonstrate, in as many ways as possible, the real life application of theory taught in the classroom. This joint effort provided an opportunity for faculty from both schools to more closely link their curriculums. This would help to reinforce instruction at both locations.

For one week in May, four fifth grade teachers from Gotwals Elementary School and eight Technical School teachers provided instuction to 90 fifth grade students who participated in the program. The students completed activities in eight applied learning programs during the week — two periods each day. During the hands-on sessions, students experienced applied math, science and chemistry while building electromagnetic motors, mixing chemicals to develop film, measuring stacks of bricks and observing methods of coloring and shaping hair in Cosmetology. In related classroom instruction, each student completed a mock job application, applied for their Social Security number and wrote letters of appreciation and thanks to the Technical School instructors.

Everyone involved with the program agreed the week of intense activities was highly motivational for the students. The activities helped students comprehend why certain skills and concepts are necessary and what value they hold. A heightened awareness of occupational choices was apparent as evidenced by subsequent classroom activities and discussion. Perhaps most importantly, students began to internalize the need to plan for the future and for becoming self-sufficient, productive individuals in society.

Abington Junior High School

Home Economics Intergenerational Understanding Project

The rationale for the Home Economics program at Abington Junior High School is to help students make sound decisions in a constantly changing environment for the improvement of the individual, the family, the workplace, and the community. The Intergenerational Understanding project in the eighth grade Home Economics curriculum provides opportunities for senior citizens and students to interact with one another.

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The project has three objectives. Each generation will develop a positive attitude and understanding of the other, senior citizens have an opportunity to see how education, school and adolescents have changed, and students are introduced to individuals from a generation very different from their own. Culminating activities include senior citizens visiting the school and sharing planned activities with the students and students visiting the senior care center and participating in their planned activities.

Students prepare for visits by completing reading assignments and developing communication skills. A guest speaker from the senior care center presents information about the purpose of their program and facilities, and dispells myths and stereotypes of aging. On a second visit the guest speaker returns to the school with six to eight senior citizens from the center. Throughout their visit, seniors interact with eighth grade classes in activities such as interviewing, crafts, food science experiments and preparation of foods which are served during a shared luncheon. When students visit the senior care center they may join the senior citizens in exercising, singing and gardening. After each visit, students complete observation and evaluation assignments.

As both groups share their time with each other they realize that each has a desire for independence, a need to communicate with others, a concern for their body's physical changes, and a zest for life. The program is repeated about every five weeks, providing every student an opportunity to participate.

Lancaster County AVTSs

Partnerships for Technological Advancements

Two eight foot robotic arms have been donated to the Lancaster County AVTS by Ford New Holland. Each system includes a programmer, controller, hydraulic unit and vision system. Students will have hands-on experience on the type of equipment they will encounter in industry.

The robotic systems were installed in the Industrial Automation Technology and Machine Trades laboratory areas. The robots will primarily be used to teach programming, troubleshooting and robotics to the automation students and to teach concepts of precision mass production to future machinists.

Students will have opportunities to "debug" the machinery. Pick and place operations will be one of the functions performed by the arm, but the students will be able to try other programs as well. The robot in Machine Trades is expected to eventually function as a part of the computerized machine laboratory including Computerized Numerical Controlled (CNC) programming station. The arm will be programmed to place raw materials into the machines and then remove the finished product as one applied process. Industrial Automation students will support the robot in Machine Trades with programming and maintenance.

Auto Body Repair, Electrical Occupations, Welding, Millwork and Cabinetry, and Industrial Automation students helped to refinish and install the robots. Ford New Holland provided extensive support services toward installation.

Community Service

Throughout the school year, Lancaster County AVTS students have been involved with many diverse community service activities.

For example, students gave their time and talents toward building flower boxes for the Ephrata Centenial celebration, cooking for less fortunate people, printing menus for charitable organizations and providing many other services. Students have also worked extensively with senior citizens, young children and handicapped individuals.

Each vocational program has been involved in some type of community service activity to benefit the local population. The schools also participated in various activities through the student organizations, Vocational Industrial Clubs of America (VICA), Future Farmers of America (FFA), Distributive Education Clubs of America (DECA), and Home Economics Related Occupations (HERO). Projects with these organizations in-

cluded food drives, blood donation programs, collecting Toys For Tots, and selling patriotic ribbons to raise funds for the U.S.O.

The commitment to community service was enhanced when the schools received a three-year grant to promote community service. The PennSERVE grant contributed $5,000 each year toward the support of community service projects. The 1990-91 school year was the final year of the grant. The Lancaster County AVTSs focused on education and curriculum development in the final year.

Community service projects provide many benefits to the AVTSs. Students benefit by seeing the need and importance of helping or contributing to the less fortunate. Pride and self-esteem are bolstered by the student utilizing his or her vocational skill to achieve a goal. Student leadership qualities are developed, and the ideas of citizenship are cultivated.

Adult Education Expansion

Several adult education programs have recently been expanded to accommodate growing demand for training. For example, the Prime Time Studies Program places adults into regular daytime classrooms. A record enrollment was established in 1990-91 with 210 individuals. The adult students included people retraining for a different career or upgrading their skills. A group of senior citizens enrolled in Business Data Processing with the goal of learning useful skills which could be turned into a second career.

The Short Term Evening program operated 92 courses during the fall and winter terms at the three AVTSs.

The Practical Nursing Program (LPN) graduated the first 12 part-time student nurses in February 1991. The part-time class was implemented after the staff became aware of a number of prospective students who could not leave daytime jobs to attend school. Part-time students attend classes two or three evenings a week and most weekends for 18 months. A second class of these students started in January, 1992. The full-time LPN program continues to operate at capacity.

Other health occupations — Medical Secretary/Assistant, Medical Transcription, Surgical Technology and Dental Assisting — continue to benefit from continued interest in health-related careers.

Workshops and specialized classes were expanded to include Food Service Sanitation Certification, Commercial Driver's License Training, Forklift Operation Certification and Nurse Aide Certification Training. The computer aided drafting workshop series is operating in the Authorized AutoCAD Training Center at Willow Street.

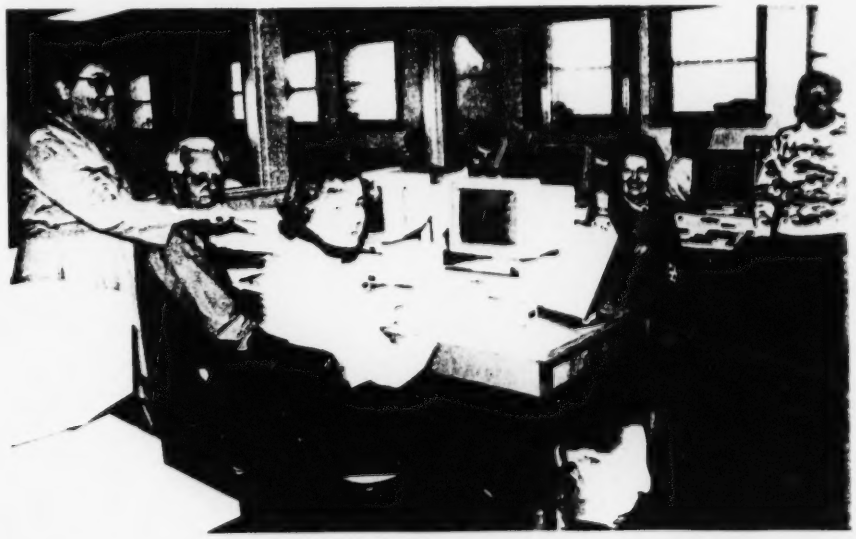
The Industrial Training Program is also in the process of expansion to accommodate more companies interested in training for their employees.

Partnership With Ford Motor Company

The Lancaster County AVTSs launched a new partnership with the Ford Motor Company and the Pennsylvania Department of Education (PDE). Ford and PDE provided funds to establish a Ford Motor Company District Training Center at Brownstown AVTS. The center will upgrade dealership technicians from eastern Pennsylvania.

The program is expected to train approximately 400 technicians each year. The training area is also available for training programs with secondary students and after-market technicians. Grant funds helped to renovate the training site and furnish technical equipment.

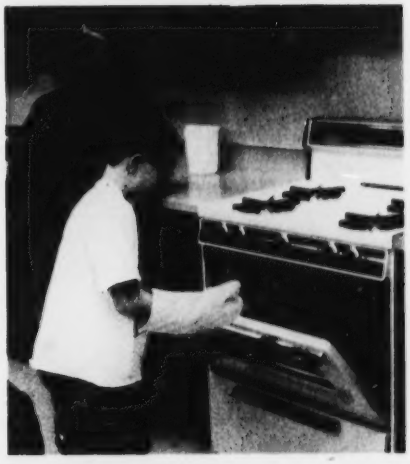
The AVTSs and Ford Motor Company have another partnership, Ford ASSET (Automotive Student Services Educational Training). ASSET began its third class in September, 1990. ASSET is operated at Brownstown AVTS and leads to an Associate Degree in Automotive Technology from Reading Area Community College (RACC).

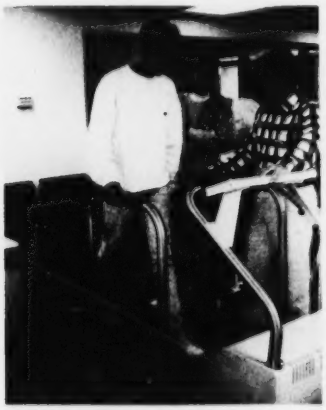


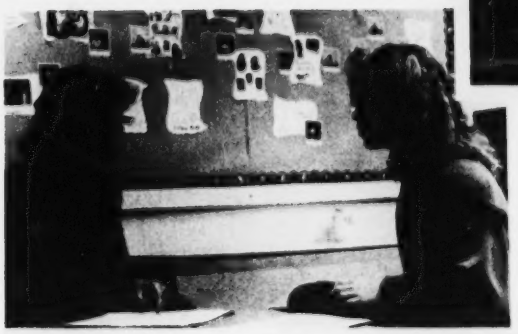
A STATISTICAL REVIEW OF VOCATIONAL EDUCATION IN PENNSYLVANIA

The following pages present a statistical summary of the status of vocational education in Pennsylvania. The tables and figures include data on vocational student enrollments, special populations, placement of completers, and earnings of employed graduates. Information is also presented on the Customized Job Training (CJT) program and the Governor's Special Grant for Education (8% Funds) of the Job Training Partnership Act (JTPA).

Total Students Enrolled in Vocational Education Programs, 1989-90		236,938
Includes:	Secondary	119,474
	Postsecondary	57,207
	Adult	60,257
Secondary Vocational Education Special Needs Students		
	Handicapped	15,510
	Disadvantaged	36,567
Teachers of Approved Vocational Education Secondary Programs		4,965
Federal Funds for Vocational Education		$40 560,085
State/Local Funds for Vocational Education		$639,742,638
Area Vocational-Technical Schools (ATVSs)		87







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Vocational Program Offerings

In Pennsylvania, vocational education classes are offered in secondary, postsecondary and adult programs. The following table identifies the number of programs offered at the various types of institutions.

TABLE 1

Public Vocational Education Institutions and Programs in Pennsylvania

1987-88 to 1989-90

	Number of Institutions Providing Vocational Education			Number of Programs Offered		
Type of Institution by Level	**1987-88**	**1988-89**	**1989-90**	**1987-88**	**1988-89**	**1989-90**
TOTAL	774*		720*	6,759		6,328
Secondary Total	667	618	623	3,978**	3,736**	3,830**
AVTS	85	85	85	1,567	1,612	1,623
High School	562	522	522	2,354	2,116	2,150
Intermediate Unit	13	4	9	25	8	24
Correctional Institution	7	7	7	32	32	33
Postsecondary Total***	92	***	90	979	***	995
State University	9		9	19		17
State-Related Commonwealth University	24		25	163		212
Community College	14		13	555		531
Private State-Aided Institution	5		4	19		16
Private College and University	31		30	128		125
Private Junior College	9		9	95		94
Other Institutions						
Adult Total	214	199	192	1,802	1,529	1,503
AVTS	73	67	68	1,261	1,050	1,066
High School	124	117	109	439	380	345
Correctional Institution	11	14	14	77	98	91
Intermediate Unit	6	1	1	25	2	1

*Unduplicated.

**Includes 94 programs not approved under state regulations and standards for vocational education.

***Data not collected every year.

Source: Bureau of Information Systems, Pennsylvania Department of Education

Secondary Vocational Education Graduates Successfully Placed

Preliminary data indicate 87 percent of Pennsylvania's 1990 vocational education graduates were successfully placed in one of the following: an occupation related to their vocational training, an occupation unrelated to their vocational training, active military service or a program of higher education.

TABLE 2

Graduates of Secondary Vocational Programs

1989-90

				—Employed, Military, Pursuing Education—								
Program	Total Surveyed	Total Response #	Total Response %	Empl Relat	Empl Unrel	Mil Serv	Purs Edu	Total Gainfully Placed #	Total Gainfully Placed %	Unemp Looking #	Unemp Looking %	Unemp Not Looking #	Unemp Not Looking %
Agriculture Education	1,268	613	48.3%	183	195	47	117	542	88.4%	54	8.8%	17	2.8%
Business Education	6,534	3,323	50.9%	760	813	73	1,272	2,918	87.8%	286	8.6%	119	3.6%
Health Occupations Education	1,077	554	51.4%	184	97	14	173	468	84.5%	46	8.3%	40	7.2%
Marketing & Distributive Education	1,141	552	48.4%	161	131	14	149	455	82.4%	64	11.6%	33	6.0%
Occupational Home Economics Education	1,408	649	46.1%	216	137	14	139	506	78.0%	92	14.2%	51	7.9%
Trade & Industrial Education	12,364	5,835	47.2%	1,807	1,809	440	1,016	5,072	86.9%	583	10.0%	180	3.1%
Not Elsewhere Classified	1,704	768	45.1%	270	232	46	150	698	90.9%	54	7.0%	16	2.1%
TOTALS	25,496	12,294	48.2%	3,581	3,414	648	3,016	10,659	86.7%	1,179	9.6%	456	3.7%

Source: VEMIS Follow-up of Completers of Approved Secondary Programs, Pennsylvania Summary, 1989-90. Bureau of Information Systems, Pennsylvania Department of Education.

Decline of Secondary Student Enrollments Continues

The 1989-90 school year marked the sixth year in a row that vocational education enrollments as a percentage of the total public secondary school enrollment (grades 10-12) declined. From a high of 47.1 percent in 1982-83, the proportion of all students enrolled in vocational education programs, including Consumer and Homemaking Education, dropped to 29.0 percent in 1989-90.

TABLE 3

Percent of Pennsylvania High School Students Enrolled in Vocational Education

1979-80 to 1989-90

	All Students Grades 10-12	Occupational Vocational Education Enrollments* Grades 10-12		Total Vocational Education Enrollments** Grades 10-12	
Year	N	N	% of Total	N	% of Total
1979-80	493,067	178,646	36.2	229,726	46.6
1980-81	478,719	175,120	36.6	224,812	47.0
1981-82	459,552	167,614	36.5	216,607	47.1
1982-83	438,066	163,645	37.4	206,261	47.1
1983-84	424,201	152,533	36.0	191,698	45.2
1984-85	412,467	139,489	33.8	173,707	42.1
1985-86	411,976	126,575	30.7	162,063	39.3
1986-87	407,064	113,876	28.0	149,266	36.7
1987-88	396,138	103,266	26.1	132,987	33.6
1988-89	373,043	86,726	23.2	111,100	29.8
1989-90	351, 755	78,943	22.4	102,002	29.0

Note: Vocational education enrollments include enrollments in state-approved programs only.

*Does not include Consumer and Homemaking Education or Industrial Arts Education.
**Includes Consumer and Homemaking Education and Industrial Arts Education.

Source: Bureau of Information Systems, Pennsylvania Department of Education.

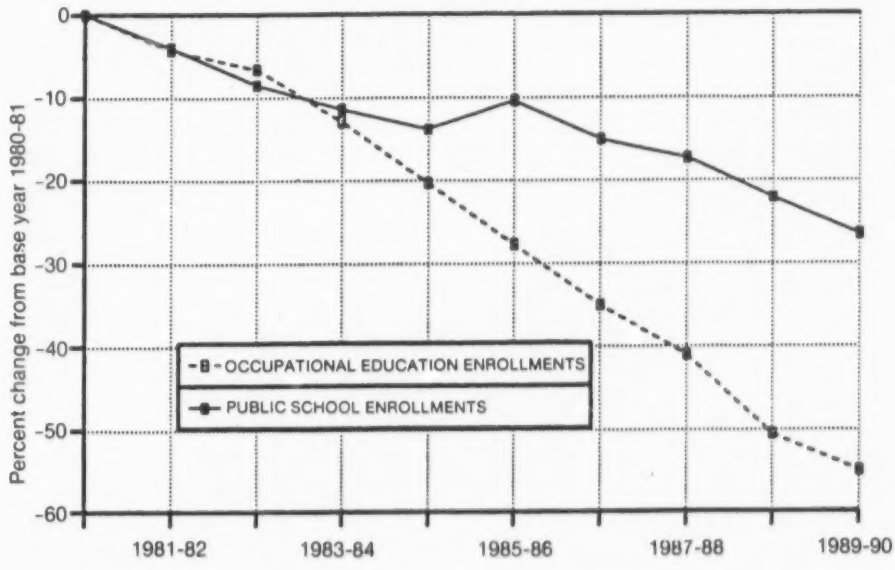
Vocational Education Enrollments Decline More Rapidly Than High School Enrollments

Secondary public school enrollments have been steadily declining in recent years. Vocational education secondary enrollments have also declined, but at almost double the rate of the public school's overall enrollment decline.

FIGURE 1

Occupational Education Enrollments and Total High School Enrollments, Percent Annual Change

1980-81 to 1989-90



Source: Vocational Education Secondary Program Statistics, 1989-90, Figure 2. Bureau of Information Systems, Pennsylvania Department of Education.

Enrollments Continue to Decline

Most occupational areas of secondary vocational education experienced a decline in enrollment in 1989-90. The overall decline for all occupational programs was 9 percent. This shows a slowing of the decline when compared to a 13 percent decline the previous year.

More than half (51%) of the 11,784 student decline was in Business Education. Marketing and Distributive Education had the second largest decline of 22 percent of the total students enrolled. Health Occupations showed a decline of less than .5 percent.

Percentages shown in the chart below reflect the percentage of student enrollment decline within each program from 1988-89 to 1989-90.

TABLE 4

Secondary Vocational Education Enrollments in Pennsylvania

1980-81 to 1989-90

Program	1980-81	1982-83	1984-85	1986-87	1988-89	1989-90	% Change 88-89/ 89-90
Agriculture Education	13,825	12,728	11,122	9,443	6,918	6,404	-7%
Marketing & Distributive Ed.	9,694	8,856	7,071	5,809	4,564	3,555	-22%
Health Occupations	5,151	4,866	5,081	4,210	3,262	3,273	—
Occupational Home Economics	7,637	10,032*	9,002	7,502	6,185	5,660	- 9%
Business Education	61,110	61,146	50,322	39,966	26,276	20,270	-23%
Technical Education	9,708	8,827	7,766	—	—	—	—
Trade and Industrial Ed.	76,708	59,859*	51,803	50,822*	45,604	43,792	- 4%
Not Elsewhere Classified	4,986	12,200	10,983	5,476	5,519	4,288	-22%
SUBTOTAL	188,829	178,514	153,993	123,228	98,328	87,242	-11%
Consumer and Homemaking Ed.	63,020	54,728	44,846	45,306	32,390	30,424	- 6%
Industrial Arts Education	—	—	—	—	540	1,808	+70%
SUBTOTAL	63,020	54,728	44,846	45,307	32,930	32,232	- 2%
GRAND TOTAL	251,849	233,242	197,996	168,535	131,258	119,474	- 9%

*Changes due in part to alterations in student accounting methods.

Note: Technical Education enrollments have been combined with Trade and Industrial Education enrollments since 1987-88. The Pennsylvania Department of Education began approving programs in Industrial Arts Education in 1987-88.

Source: Vocational Education Secondary Program Statistics, 1989-90, Table 2. Bureau of Information Systems, Pennsylvania Department of Education.

Most Special Population Enrollments Decline Proportionately

When all levels of vocational education are compared, most categories of special populations declined in close proportion to the total decline in vocational education enrollments. However, handicapped enrollments increased 5%.

TABLE 5

Enrollments of Special Populations — All Levels*

1982-83 to 1989-90

Years	Female	Minority	Disadvantaged	Handicapped
1982-83	211,668	52,565	63,906	19,992
1983-84	198,819	52,215	70,544	20,027
1984-85	189,958	52,685	77,799	21,322
1985-86	185,952	47,632	70,219	18,618
1986-87	176,208	46,311	60,627	17,480
1987-88	147,806	40,685	58,318	17,455
1988-89	129,206	36,897	45,381	14,969
1989-90	121,066	33,833	41,113	15,721

*Includes secondary, postsecondary and adult enrollments.

Note: Postsecondary enrollment figures for disadvantaged and handicapped students includes only those students provided with services supported by federal vocational education funds.

Source: Vocational Education Program Statistics, 1989-90, Tables 3-5. Bureau of Information Systems, Pennsylvania Department of Education.

Vocational Education Continues to Serve High Percentage of Special Population Students

Although vocational education enrollments continue to decline, special populations continue participation at a steady pace.

TABLE 6

Secondary, Adult and Postsecondary Special Populations

1987-88 to 1989-90

	1987-88		1988-89		1989-90	
Level/Program	**Enrollments**	**% of Total**	**Enrollments**	**% of Total**	**Enrollments**	**% of Total**
Secondary (Total)	151,107	—	131,258	—	119,474	—
Female	81,953	54.2%	68,841	52.4%	60,953	51.0%
Minority	26,413	17.5%	23,263	17.7%	21,079	17.6%
Disadvantaged*	45,926	30.4%	41,209	31.4%	36,567	30.6%
Handicapped*	15,755	10.4%	14,678	11.2%	15,510	13.0%
Adult (Total)	77,067	—	60,532	—	60,257	—
Female	32,063	41.6%	26,305	43.5%	25,819	42.8%
Minority	7,569	9.8%	7,079	11.7%	6,281	10.4%
Disadvantaged*	4,394	5.7%	4,172	6.9%	4,546	7.5%
Handicapped*	383	.5%	291	.5%	211	.3%
Postsecondary (Total)	56,570	—	56,800	—	57,207	—
Female	33,790	60%	34,060	60%	34,294	60.0%
Minority	6,703	11.8%	6,555	11.5%	6,273	11.0%

*Does not include students in correctional institutions.

Source: Vocational Education Program Statistics, 1987-88, 1988-89, and 1989-90, Tables 3-5. Bureau of Information Systems, Pennsylvania Department of Education.

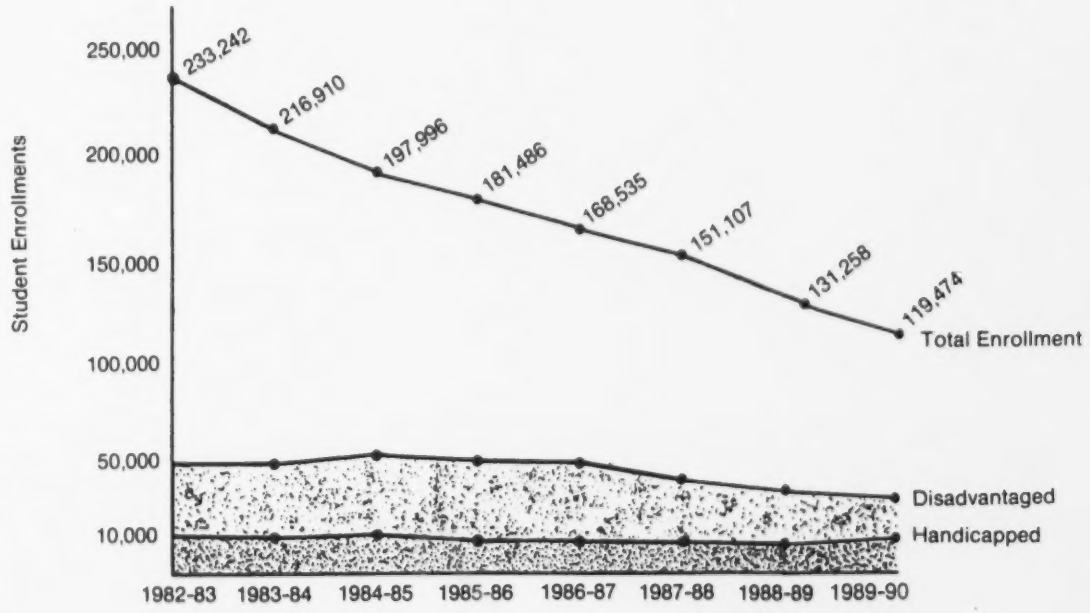
Disadvantaged and Handicapped Secondary Enrollments Remain Stable

Although secondary vocational education enrollments have been steadily declining since 1983-84, the number of disadvantaged and handicapped students enrolled in secondary vocational education has remained relatively constant. While these special populations represent a higher percentage of the total student population than previously, these stable enrollments identify the continued need for vocational education for these students.

FIGURE 2

Disadvantaged, Handicapped and Total Secondary Vocational Education Enrollments

1982-83 to 1989-90



Source: Vocational Education Secondary Program Statistics 1989-90, Tables 1 and 7. Bureau of Information Systems, Pennsylvania Department of Education.

Special Needs Students Enrolled In Secondary Vocational Education Programs

Special needs students may be enrolled in a separate vocational education program or in a mainstream program with regular students. In 1989-90, 85 percent of the handicapped and 96.6 percent of the disadvantaged students in vocational education were in a mainstream program.

TABLE 7

Special Needs Students Comprise 43% of Secondary Vocational Education Enrollments

Program	Total Vocational Enrollments	Handicapped		Disadvantaged	
		Enrollments	%	Enrollments	%
Agriculture Education	6,404	993	15.5%	1,674	26.1%
Business Education	20,270	618	3.0%	6,114	30.2%
Health Occupations Education	3,273	417	12.7%	1,306	39.9%
Marketing & Distributive Education	3,555	461	13.0%	1,129	31.8%
Occupational Home Economics Education	5,612	1,788	31.9%	2,088	37.2%
Trade & Industrial Education	42,815	7,444	17.4%	15,623	36.5%
Not Elsewhere Classified	4,267	1,427	33.4%	1,138	26.7%
Consumer & Homemaking Education	30,424	2,156	7.1%	6,696	22.0%
Industrial Arts	1,808	206	11.4%	799	44.2%
Total*	118,428	15,510	13.1%	36,567**	30.9%

*Does not include enrollments in correctional institutions.

**Includes limited English proficiency enrollments.

Source: Secondary Program Statistics, 1989-90, Table 7. Bureau of Information Systems, Pennsylvania Department of Education.

Vocational Enrollments Fluctuate By Level

As illustrated below, enrollments in secondary and adult vocational education programs continue to show a steady decline throughout the 1980's, while postsecondary enrollments remain less stable, and fluctuate year to year.

TABLE 8

Vocational Program Enrollments — All Levels, Selected Years

Level	1980-81	1984-85	1989-90
Secondary	251,849	197,996	119,474
Postsecondary	71,292	93,133	57,207
Adult	82,577	72,963	60,257
TOTAL	405,718	364,092	236,938

Note: During the years shown here data collection systems changed from HEGIS to IPEDS accounting for some fluctuations in enrollment.

Source: Vocational Education Program Statistics, 1985-86, Table 1, and 1988-89, Tables 1-3. Bureau of Information Systems, Pennsylvania Department of Education.

Student Organizations Show Small Decrease in Membership

Occupational skills learned in the classroom and laboratory are enhanced by the leadership experiences gained through participation in a vocational student organization. While the number of vocational student organization chapters increased less than 1%, the number of student members decreased 2.4% since 1989. These slight changes reflect relatively stable membership despite a continuing decline in vocational education student enrollments.

TABLE 9

Vocational Student Organization and Membership

1985-86 to 1989-90

	Chapters					Membership				
Student Organization	**1985-86**	**1986-87**	**1987-88**	**1988-89**	**1989-90**	**1985-86**	**1986-87**	**1987-88**	**1988-89**	**1989-90**
TSA/AIASA*	37	37	41	42	50	3,486	6,210	6,203	5,810	6,821
DECA	91	92	89	90	87	4,147	4,450	4,034	3,676	3,375
FBLA	269	285	293	300	296	11,064	11,015	10,984	11,000	10,515
FFA	190	209	202	191	193	9,952	9,500	8,565	7,989	7,820
FHA-HERO	116	123	131	125	126	2,672	2,948	2,795	2,606	2,495
HOSA	50	41	49	51	51	1,932	1,761	1,665	1,642	1,695
VICA	106	107	106	87	91	23,863	22,044	22,089	22,307	21,009
TOTALS	859	894	911	886	894	57,116	57,928	56,335	55,030	53,730

*AIASA, the American Industrial Arts Student Association, was renamed the Technology Student Association, effective June, 1989.

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Earnings of Vocational Education Graduates

Earnings of 1989 vocational education graduates reflect the trends in the general economy. Earnings of males exceed those of females in almost every occupational area and level of preparation.

TABLE 10

Earnings of Employed 1989 Vocational Completers Compared by Sex, Level, and Program

Level/Program	Average Hourly Salary	
	Female	Male
SECONDARY	$5.76	$6.87
Agriculture Education	5.09	5.77
Business Education	6.06	6.50
Health Occupations Education	5.68	—
Marketing & Distributive Education	5.00	6.27
Occupational Home Economics Education	4.93	5.96
Trade and Industrial Education	5.23	7.02
Not Elsewhere Classified	6.17	7.15
ADULT	8.11	9.79
Business Education	6.81	—
Health Occupations Education	8.58	8.44
Trade and Industrial Education	8.04	10.00

Note: The average hourly salary was computed from salaries reported in a survey of graduates by respondents employed 35 or more hours per week in a field related to their training.

Source: Bureau of Information Systems, Pennsylvania Department of Education.

Adult Enrollments Stabilize

Adult vocational education enrollments reached a peak of 81,818 in 1984. Since 1986-87, total enrollments have declined each year. The 1989-90 enrollments reflect the smallest decline in recent years (.5%).

TABLE 11

Adult Vocational Education Enrollments

1985-86 to 1989-90

Program	1985-86	1986-87	1987-88	1988-89	1989-90	% Change 1988-89
Agriculture Education	4,619	5,035	5,033	4,491	4,405	-1.9%
Business Education	20,096	24,330	19,970	18,268	19,127	+4.5%
Health Occupations Education	6,643	5,303	4,755	5,077	6,170	+17.7%
Marketing & Distributive Education	880	929	535	589	360	-38.9%
Occupational Home Economics Education	2,839	3,061	3,064	1,727	1,700	-1.6%
Technical Education	4,217	—	—	—	—	—
Trade and Industrial Education	32,962	40,799	41,527	29,178	27,764	-4.8%
Not Elswhere Classified	423	366	418	353	101	-71.4%
Consumer and Homemaking Education	1,702	1,510	1,765	849	630	-25.8%
GRAND TOTAL	80,381	81,333	77,067	60,532	60,257	-0.5%

Note: Technical Education and Trade and Industrial Education combined since 1986-87.

Source: Vocational Education Program Statistics, 1989-90, Table 2. Bureau of Information Systems, Pennsylvania Department of Education.

Adult Vocational Education Graduates Achieve 82% Placement Rate

Survey data reveals 82 percent of Pennsylvania's adult vocational education graduates were successfully placed in one of the following: an occupation related to their vocational training, an occupation unrelated to their vocational training, active military service or a program of higher education.

TABLE 12

Adult Vocational Education Graduates

1989-90

Program	Total Surveyed	—Employed, Military, Pursuing Education— Total Response #	%	Empl Relat	Empl Unrel	Mil Serv	Purs Edu	Total Gainfully Placed #	%	Unemp Looking #	%	Unemp Not Looking #	%
Agriculture Education	32	17	53.1%	5	6	0	2	13	76.5%	1	5.9%	3	17.6%
Business Education	1,073	633	59.0%	209	205	1	54	469	74.1%	87	13.7%	77	12.2%
Health Occupations Education	1,931	1,143	59.2%	871	79	5	83	1,038	90.8%	49	4.3%	56	4.9%
Marketing & Distributive Education	10	6	60.0%	1	2	0	0	3	50.0%	0	.0%	3	50.0%
Occupational Home Economics Education	191	65	34.0%	14	15	0	9	38	58.5%	18	27.7%	9	13.8%
Trade & Industrial Education	1,469	735	50.0%	281	262	6	42	591	80.4%	94	12.8%	50	6.8%
TOTALS	4,706	2,599	55.2%	1,381	569	12	190	2,152	82.8%	249	9.6%	198	7.6%

Source: VEMIS Follow-up of Completers of Adult Programs, Pennsylvania Summary, 1989-90. Bureau of Information Systems, Pennsylvania Department of Education.

JTPA Clients Receive Vocational Education Services

Job Training Partnership Act (JTPA) clients receive training in area vocational-technical schools, comprehensive high schools and community colleges on a contractual basis with Private Industry Councils. These vocational education agencies are given preference in supplying vocational training to JTPA clients. This training is funded by the Governor's Special Grant for Education (8% Funds) of JTPA. In 1989-90, 64 percent of those enrolled in JTPA programs completed the training. This is a decrease of 3 percent over the previous year.

TABLE 13

JTPA Enrollments and Completers

1989-90

	Enrollments	Completers
GRAND TOTAL	13,562	8,705
PROGRAM		
AGRICULTURE EDUCATION—TOTAL	6	6
Horticulture	6	6
BUSINESS EDUCATION—TOTAL	391	298
Accounting, bookkeeping and related programs	50	36
Business data processing and related programs	4	2
Computer and console operation	23	23
Data entry operation	28	23
General office and related programs	142	118
Secretarial and related programs	30	19
Secretarial, legal	10	7
Secretarial, medical	33	14
Word processing	58	52
Other business education	13	4
HEALTH OCCUPATIONS EDUCATION—TOTAL	702	457
Dental services	73	40
Medical assisting	47	38
Medical laboratory technology	36	15
Mental health/human services assisting	87	87
Nursing	136	78
Nursing related services	57	38
Practical nursing	203	130
Rehabilitation Service	24	11
Repiratory therapy technology	6	4
Other health occupations education	33	16
MARKETING AND DISTRIBUTIVE EDUCATION—TOTAL	4	3
General Marketing	2	2
Other marketing and distributive education	2	1
OCCUPATIONAL HOME ECONOMICS EDUCATION—TOTAL	98	89
Food production, management and services	62	57
Homemaker's aide	16	16
Other occupational home economics education	20	16
TRADE AND INDUSTRIAL EDUCATION—TOTAL	382	254
Air conditioning, heating and refrigeration technology	6	4
Building and property maintenance	30	18
Carpentry	15	10
Computer and information sciences	23	12
Cosmetology	13	7
Data processing	25	21
Drafting and design technology	7	3
Drafting	17	14
Electrical and electronic technology	9	5
Electrical and electronics equipment repair	10	10
Electrical and power transmission installation	11	9
Electromechanical instrumentation & maintenance technology	8	3
Graphic and printing communications	20	16
Heating, air conditioning and refrigeration mechanics	17	7
Machine shop	38	30
Industrial equipment maintenance and repair	36	27
Tool & die making	17	12
Vehicle and mobile equipment mechanics and repair	24	20
Welding	21	5
Other trade and industrial education	35	21
NOT ELSEWHERE CLASSIFIED—TOTAL	11,979	7,598
Adult basic education	3,980	2,328
English as a second language	384	312
General educational development	4,973	3,473
Other not elsewhere classified	2,642	1,485

Source: Pennsylvania Department of Labor and Industry.

Customized Job Training for Pennsylvania Employers

In 1989-90, Pennsylvania's Customized Job Training (CJT) Program served 129 Pennsylvania employers. More than 15,000 persons participated in CJT funded projects, an increase of 4,650 persons over the previous year. These projects provided training for new employees and for the upgrading and/or promotion of experienced employees.

The CJT program, initiated in 1982-83, is fully supported by state funds. Training is provided in classrooms, shops/laboratories, and businesses by AVTSs, community colleges, intermediate units, school districts, private postsecondary institutions, four-year colleges, and other service providers.

TABLE 14

Pennsylvania CJT Program Summary

1982-83 to 1989-90

Year	New Jobs	Promotions or Upgrades	Total Trained	Expenditure (millions)	Employers Served	Projects Funded
1982-83	1,740	421	2,161	$ 1.9	50	85
1983-84	1,328	1,317	2,645	$ 4.6	58	111
1984-85	1,739	5,424	7,163	$ 6.1	105	124
1985-86	3,052	12,919	15,971	$11.9	162	164
1986-87	4,436	25,270	29,706	$13.5	153	162
1987-88	4,826	14,627	19,453	$13.5	156	198
1988-89	5,623	5,443	11,066	$11.7	120	120
1989-90	4,925	10,791	15,716	$10.5	129	129
TOTALS	27,669	76,212	103,881	$73.7	933	1,093

Note: Some companies participated in more than one training project.

Source: Bureau of Vocational Education, Pennsylvania Department of Education.